



Sea Swallow



Annual Report of the Royal Naval Birdwatching Society



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Golden
Jubilee
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ROYAL NAVAL BIRDWATCHING SOCIETY

(Registered Charity No. 207619)

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For details of local representatives and other useful addresses see page 118.

Subscription rates. Full and Associate Members £8 (£7 if covenanted) annually.
Library rates - Cost of *Sea Swallow* (£6) plus postage.**Membership** has been widened from the R.N. to include all those who share a common background - the sea itself - regardless of nationality.***Aims and activities.** The primary aim of the Society is to promote a forum for the exchange of information on seabirds, and of landbirds at sea, by members for whom birdwatching is a spare-time recreation and hobby. The secondary aim is to co-ordinate the efforts of individual members using standardised recording methods so that observations can be of value to the professional ornithologist ashore.**RNBWS Record Forms.** Standardised forms for recording Seabirds and Landbirds at sea. Seabird Census sheets, Bird examined in the Hand (BEH) forms have been designed for use at sea. Stocks are kept by Warrant Officer C. A. R. Bailey, 8 Grange Close, Gosport Hants. PO12 3DX. (Tel: 01705 526264). Please give detailed requirements and enclose a large stamped and addressed envelope.

Completed record forms (both seabirds and landbirds) should be sent to Michael Casement.

Material for publication in *Sea Swallow* should be sent to the Editor(see instructions to authors page 118).*an application form for membership is at page 119 in this edition of *Sea Swallow*.

PATRON'S FOREWORD



BALMORAL CASTLE

It is impossible for anyone to go to sea for any period of time without being conscious of sea birds. For most of the time, they are the only other living things to be seen. Service in the North Sea, the Mediterranean, Indian and Pacific Oceans during the war provided a broad introduction to the birds of the oceans, but it was during long foreign voyages in the Royal Yacht 'Britannia' in the fifties that I began to take more than a casual interest. Crossing the Southern Ocean to Antarctica and visits to such isolated islands as South Georgia, Gough Island and Tristan da Cunha provided wonderful opportunities to observe and photograph unusual birds. Those photographs led to the publication of 'Birds from Britannia' in 1962. I was greatly helped in the production of the book by the then Chairman of the Royal Naval Bird Watching Society, Captain G.S Tuck, who provided the ornithological glossary, and by another member and artist, Commander A.M. Hughes, who drew two maps and eight excellent paintings of sea birds.

I am delighted that the Society has prospered over the intervening years and that it is celebrating its Golden Jubilee in such a healthy state. It is common knowledge that the whole of the world's natural environment is being seriously affected by the growth in numbers and activities of the human population, but it needs very special attention to monitor and record the precise details of this impact. The RNBWS has an important task in helping to provide the facts about the less well known birds that travel the oceans of the world.



PRESIDENT'S FOREWORD

25 years ago Admiral Sir Nigel Henderson wrote in his President's Foreword that: "The RNBWS is fortunate in having as its unique environment the seas of all the world which cover about three-quarters of the globe. There is still so much to be learned about the bird-life of the oceans and it is satisfying to know that our Society makes such a worthwhile contribution to this widening of knowledge. The RNBWS is all-embracing and therein lies its main strength. It covers all the oceans of the world, and its membership is composed of all manner of people whose business is on the seas".

That flashback to 1971-72 is challenging. In the intervening quarter-century our contemporaries have become more aware of the fragility of the environment, not least the marine element in which we operate. We still have much to learn, and the need to gather data which will illuminate such issues as the impact of commercial fisheries, or of shore or ship-generated pollution grows more urgent. Hence, it is encouraging that the vision for an all-embracing RNBWS membership has been fulfilled, as the pages of successive editions of *Sea Swallow* amply indicate.

I look forward to joining with a good representation of our membership at our Jubilee AGM on 6th December, where this splendid Jubilee Edition will be launched, and where we will celebrate the achievements so far, and plan ahead for an exciting future.

DAVID DOBSON President

CHAIRMAN'S FOREWORD

I joined RNBWS very shortly after the Silver Jubilee. The circumstances are telling. As an OOW in a frigate on Cod War patrol around Iceland, I was entranced by the abundant seabird life and by the passage of migrants, who often used us as a stepping-stone. I was also fortunate in the presence of an RNBWS member who encouraged my interest - and signed me up! As a result my whole subsequent sea-going life has been enriched, and any professional awareness sharpened. My visits to foreign and Commonwealth ports have also brought me into contact with generous fellow spirits who have shared the best of their countries, and broadened my mind.

I was very struck by David Duffy's concluding argument in "*Seabirds on Islands*", No.1 in the Birdlife Conservation Series (1994), concerning our inability to judge how many of the world's seabird species are "fading away" leaving a vacant role in their ecosystem: "We cannot know because our knowledge of the past is so poor, and, what we do know, we often don't use. Our knowledge of the present is quite good and well documented so that future scientists and conservationists will be able to judge the success of our efforts against the present" In the past 25 years RNBWS has made a significant contribution to that present knowledge. The distributional analysis of RNBWS records achieved by Gerald Tuck, with the generous assistance of Bill Bourne and other professional advisers, resulted in the first modern Field Guides covering the seabirds in every ocean, and the indebtedness of subsequent authors is often forgotten. During the past year, RNBWS has taken up David Duffy's two-pronged challenge for the future to make sure that our past records remain accessible for seabird studies, and to ensure that our future observational efforts are informed by professional needs and priorities. I hope that a wider and wider pool of sea-goers will be attracted to share the rewards of this amateur task.

MICHAEL BARRITT Chairman

EDITORIAL

This Golden Jubilee issue celebrates the Society's formation, 50 years ago. Much discussion took place for grandiose plans to mark this major milestone, including ideas to publish a book, but these had to be shelved, due to costs. It was decided instead, at our 1994 AGM, to celebrate with a special issue of this journal, which would contain both additional pages, and as many colour photographs as funds would allow. At the same time, it was agreed that the front cover be changed.

The distinctive original cover design, which has served us so well for 50 years, is believed to have been based on an original drawing of a tern (or "sea swallow") by James Audubon, but the consensus of those present at the 1995 AGM was that a more modern image was appropriate for the second half-century. Members voted on a range of options, and agreed the design should include a colour photograph of an Arctic Tern in flight. The one eventually chosen is from a 35mm transparency taken by myself on a visit to Iceland, 25 years ago. But the original design is still retained, as a logo in the top left corner.

The colour photographs in this issue aim to show a range of those taken by members, over the years. Many of these have appeared before, but in black and white only, due to prohibitive costs for our small membership. We are therefore very grateful for the grants from the Sailor's Fund and the Fleet Amenities Fund which has made this possible.

Our aim has been to provide a delicate balance between past, present and future. The society has an illustrious pedigree which needed to be placed on record, for younger members without access to the early literature. The following pages show the debt we owe to many, and in particular to Captain Gerald Tuck who, together with Admiral Sir Nigel Henderson, formed the major partnership for our first half-century; also to Winton Maclure who managed our affairs so skillfully for 27 years. Our special thanks are due to the two Founder Members who still remain on our executive committee: Sir Tom Barlow, as Vice-Chairman, and Peter Smith as Hon. Secretary.

Bill Bourne and Neil Cheshire have summarised the *Sea Swallow* highlights and achievements in the Atlantic, Indian and Pacific Oceans; another article covers the contribution made by members of the Ocean Weathership Service over the years 1964-1996. Time and space did not permit similar articles covering other important areas, notably the Mediterranean and Caribbean. I am especially pleased to include the paper from Michael Barritt (Chairman), about the history of seafaring ornithologists, and the birds named after them.

Turning to the present, we have tried to maintain a fair balance between the amateur seagoing birdwatcher, and the dedicated professional researcher; each must complement the other. Few who earn their living aboard ships of the Royal or Merchant Navies have the time or opportunity to make the detailed and continuous records achieved by Graham Wragg and his colleagues, in their article covering the central Pacific (see page 71), but subsequent records from casual observers passing through this area will now have added value when viewed against the background of this study. For most sailors, all gulls are merely "shite-hawks". Nearly all readers of this journal think we can identify the Herring Gull or Lesser Black-back, but will life ever be the same again after Bill Bourne's erudite article on such gulls? (see page 86) We all must look at them more critically, in future, and can we now expect our post to include a flood of

envelopes containing decaying remains, for expert identification? Ornithology does not stand still, and everyone, both amateur and professional, has a part to play in the unceasing quest for more knowledge about birds seen at sea, or found on the beaches. The annual summaries of seabird and landbird reports received are published, as usual, and three contributions are from the Black Sea, which hopefully will encourage more observations from this area, much neglected in the past.

The previous forewords give clues to where we think we should be going in the future, but the course has yet to be plotted, and the debate remains open. Modern word-processors and desk-top computers obviously have an important part to play for handling the growing mass of data. But they are no substitute for the pencil and note-book for recording the precise details of plumage and behaviour (and "jizz"), without which identifications of unusual sightings cannot be validated. Accurate positional data and weather conditions can also be vital clues. We are in great danger of being swamped by computer print-outs of spurious data, which have little value to anyone, and must proceed with great care. Nor should we try to compete with bigger organisations better equipped to handle our unique data. RNBWS is bedevilled by the small size of its active membership and the economics of a too-small print-run for *Sea Swallow*. Ours is a highly specialised niche filled by no one else. With half a century's experience behind us we continue to collect material from the oceans of the world, but no other organisation appears capable or willing to analyse or publish this.

Meanwhile, I have now updated myself with *Windows 95* and a new computer, which can accept 3.5" disks compatible with most software programmes. I am open to suggestions from anyone who can volunteer to help analyse past *Sea Swallow* data, or give help for the future. As a first step, who can offer to update the splendid *Sea Swallow "Index"* produced for Vols 1-34 by the late Captain J.A.F (John) Jenkins and published (in 1987) by the Australasian Seabird Group as Newsletter No. 26? We look forward to hearing from anyone with ideas to offer.

It is not too soon to send in contributions for *Sea Swallow 46*, and I can always use new photographs, though probably, alas, not in colour next year. Please contact me. Good birdwatching.

Finally, my thanks are due to all who have contributed to this special issue, to Martin Smith (of "designline") who produced the artwork, and to my long-suffering wife who has drawn the maps for this, and numerous previous editions of *Sea Swallow*.

MICHAEL CASEMENT

SEABIRD NAMES

As announced last year (SS 44: 3), we have now produced a revised version of our *Seabird Checklist*, which takes account of many comments received. The nomenclature of seabirds is in an international state of flux, and this checklist attempts to provide some stability, and to reduce confusion among seafarers.

It is published as an insert (free to members), with this issue. It bears a cover price of 50p (to defray production costs) and additional copies are available (@ 75p to cover postage) - see Order Form on page 120. It would be helpful if members could refer to this when submitting contributions, and disseminate copies widely to potential authors.

W.R.P.B. and M.B.C.

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OFFICERS OF THE ROYAL NAVAL BIRDWATCHING SOCIETY PAST AND PRESENT

Presidents

Vice-Admiral Sir William G. Tennant, KCB, CBE, MVO.	1946-1951
Vice-Admiral The Mackintosh of Mackintosh, CB, DSO.	1952-1957
Admiral Sir Charles E. Lambe, GCB, CVO.	1957-1960
Vice-Admiral N.S. later to become:	
Admiral Sir Nigel Henderson, GBE, KCB.	1961-1982
Vice-Admiral Sir Peter Stanford, KCB, MVO.	1983-1991
Vice-Admiral Sir David Dobson, KBE.	1991-

Vice-Presidents

Sea Swallow No.1 lists the following four founder members, who kindly agreed to become Vice-Presidents, and continued to serve as shown:

Rear-Admiral G.M.B. Langley, CB, OBE	1946-1964
Rear-Admiral L. Mackintosh, CB, DSO, DSC	1946-1952
Dame Vera Laughton Matthews, DBE	1946-1955
Lt. Cdr Peter M. Scott MBE, DSC, RNVR (later to become) Commander Sir Peter Scott KBE, DSC, RNR	1946-1988

Space does not permit to list them here, but thereafter were added a succession of:

Directors WRNS, (Commandant N.M. Robertson, CBE in 1956)
The Masters, The Honourable Company of Master Mariners, (Captain W.E.B. Griffiths,CBE in 1967)

The Matrons-in-Chief, QARRNS (Miss Christine Thompson in 1971)
Senior representatives of the Merchant Navy (1960-1971 - Captain J.D. Elvish, CBE, MN in 1960)

and in due course:

Captain G.S. Tuck, DSO, RN	1981-1984
Admiral Sir Nigel Henderson, GBE, KCB	1989-1993

Chairmen

Captain R.M.T. Taylor, RN	1946-1950
Captain G.S. Tuck, DSO, RN	1951-1980
Commander M.B. Casement, OBE, RN	1980-1989
Commander (now Captain) M.K. Barritt, RN	1989-

Vice-Chairmen

Captain G.S. Tuck, DSO, RN	1948-1950
Captain H.A. Traill, CBE, RN	1951-1954
Captain R. Casement, OBE, RN	1954-1967
Captain Sir Thomas Barlow Bart, DSC, RN	1968-

Vice-Chairmen (Representing the Merchant Navy)

Captain E.F. Aikman, MN	1971-1981
Captain P.W.G. Chilman, MN	1982-

Hon. Secretary and Treasurer

Captain N.A.G.H. Beal, RM	1946-1950
Commander T.E. Barlow, DSC, RN	1950
Lt. Cdr (S) D. Thomas-Ferrand, RN.	1951-1953
Lt (S) W.L. Critchley, RN	1953
Commander (S) C.E. Smith, RN	1954
Lt. Cdr E.S.W. Maclare, RN	1957-1984
Colonel P.J.S. Smith, RM	1985-

Editor of *Sea Swallow*

Captain R.M.T. Taylor, RN	1946-1950
Captain G.S. Tuck, DSO, RN	1951-1979
Commander M.B. Casement, OBE, RN	1980-

Assistant Editor

Chief Officer S.E. Chapman, MN	1981-1990
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Sea Swallow

The first edition of *Sea Swallow*, published in December 1947, was produced by an 'Editorial Committee' listed as: Surg. Lt. Neal Rankin RNVR, Captain Bernard Jeans RM, Lieutenant Arthur Gilpin RNVR, Lieutenant Eric Duffey RNVR and Major Noel Beal RM. Petty Officer J.W. Evans RN joined this committee in 1949 for *Sea Swallow 2*, and Chief E.R.A. (later to become Engineer Lt.) N.C. Wain RN in 1951 (SS 4).

Thereafter, as Chairman RNBWS, Captain Tuck became effectively also Editor of *Sea Swallow*, though this was not formally recognised until 1974 (SS 23). Meanwhile, the 'Editorial and Advisory Committee' was augmented by Commander C.E. Hamond, DSO, DSC*, RN in 1957 (SS 10), and Surg. Lt. J.G. (Jeffrey) Harrison RNR, and Captain P.P.O. (Paul) Harrison, MN in 1960 (SS 13). Dr W.R.P. (Bill) Bourne is first listed as an 'Editorial and Advisory Member' in 1961 (SS 14), and has continued in that capacity ever since.

During my own term of office, since 1980, I have relied heavily on the contributions and advice of many, and especially from Bill Bourne, Stephen Chapman, Peter Chilman and Captain N.G. (Neil) Cheshire MN without whose help the annual task of producing *Sea Swallow* would have been impossible.

Advisory Members. RNBWS was advised from the outset by a number of distinguished ornithologists from the British Ornithologists' Union, who are listed in the first edition of *Sea Swallow*:

B.W. Tucker, MA, FZS, MBOU
 W.B. Alexander, MA, MBOU,
 Professor V.C. Wynne-Edwards, MBOU, AOU,
 Dr. B.B. Roberts, MBOU, and E.M. Nicholson, MBOU.
 James Fisher joined this list in 1950 (SS 3), and D. Watkins-Pitchford, FRSA, ARCA and R.M. Lockley in 1952 (SS 5).

The Society was affiliated to the British Trust for Ornithology, from its formation in 1946, and the Editorial Committee (in SS 1) acknowledged also the help and encouragement received from additional members of the BOU - Dr D.A. Bannerman, Captain C.H.B. Grant, P. Hartley Esq, and Dr. A. Landsborough Thompson, CB, OBE. - and from John Barlee, FRPS, and

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members of the Ornithological Section of the London Natural History Society.

In 1967, the Society became affiliated to the British Section, International Council for Bird Preservation (ICBP), later to become BirdLife International. **The Membership.** The editorial of *Sea Swallow* 1 stated that the membership then comprised officers and men of "almost every branch of the Royal Navy, and also members of the Royal Australian, Royal Canadian and Royal New Zealand Navies; from the Nautical College, Pangbourne, the Sea Cadet Corps and the American Weather Bureau". The Field Club of the Royal Naval College, Dartmouth, was welcomed as an affiliated society, and the total membership is shown as "six honorary, one corporate and 250 ordinary members, making 257 in all". Many of these joined as 'Life Members' for the princely sum of £5 (officers) and £2.10s (ratings). My own involvement began when my father made me a 'Life Member' as a reward for passing into Dartmouth as a Special Entry cadet, aged 18, in 1951.

From those early days RNBWS prospered, and its reputation grew, even though the numbers of seagoing members declined with the demobilisation of the RNVR and the steady decrease in ships of the Royal Navy. Membership was extended to include the British Merchant Fleet, in 1959, and thereafter has been progressively widened to include uniformed and civilian representatives from many maritime organisations and countries. We have recently welcomed Gabriel Banica, our first from a former Warsaw Pact country, Romania. We welcome observations of all birds at sea, and applications for membership from yachtsmen and fishermen, and from passengers aboard cruise liners - indeed from anyone who has a common interest in the sea itself.

The membership has remained remarkably constant over the years, and currently stands at 270 - small by many standards, but covering a unique and specialised field.

The original annual subscription was set at two shillings (for officers) and one shilling for ratings, but was increased in 1951 to 10s 0d (for officers) and 7s 0d (for ratings), both to include the Annual report (then priced at 4s 0d) and two newsletters. Inflation inevitably has taken a heavy toll, and life membership was rescinded many years ago. But the present subscription rate of only £8, including the cost of *Sea Swallow* and *Bulletins* twice a year, still represents very good value.

Fifty Years of *Sea Swallows* reflections from the current Editor.

This Golden Jubilee edition is volume number 45 of our annual journal, which prompts many to query the numbering of this series. Herewith is a brief explanation for frustrated librarians!

The first issue was published in December 1947. It contains 41 pages, including the full list of (257) members' addresses and Treasurer's Accounts. The cost of production for this first issue was £40; no cover price is shown.

The second issue was published in June 1949, and No.3 in August 1950. Thereafter, the journal appeared annually, usually in December, to publish information received during the current year, but this original aim soon proved impracticable, as the volume of reports increased dramatically. Publication dates seriously began to slip in 1963, and both SS 16 and SS 17

appeared late, in the subsequent year. In SS 19 Bill Bourne's seabird analysis covered reports received in 1965 from 25 observers or teams, totalling over 91 voyages. Thus there are four years in which no *Sea Swallow* was published: 1948, 1963, 1967 and 1972.

Subsequent issues caught up with the backlog of data, and to indicate this, the practice was instituted to show the year(s) covered - for example SS 21 was published in 1971 and covers data and contributions received for 1969/70, as indicated at the top of the cover page. This practice was discontinued in 1984, because it was thought to be confusing for readers. Thereafter, only the date of publication is shown.

Sea Swallow has been published annually, in October, since 1984, to include seabird analyses from reports received during the previous year. Despite the advantages of word-processors and modern printing technology, this schedule is still a difficult target to achieve.

The Silver Jubilee issue. Vol 27 was published in 1978, covering data received in 1976/77. This was, to quote from Admiral Sir Nigel Henderson's Presidential foreword.. "rightly called the Jubilee Issue in accord with the celebrations and commemoration of our Queen's Silver Jubilee. We are fortunate to have as our Patron of the society His Royal Highness Prince Philip, who as we all know is deeply interested in birds, and not the least sea birds. He is in fact, an authority in his own right. We are proud also to count among our members His Royal Highness The Prince of Wales....." In recognition of this special issue, a page of colour photographs was included - a luxury Society funds could not normally afford.

The Royal Naval College Dartmouth was closely involved with the formation of the Society, through John Barlee, the noted pioneer of bird flight photography, who was then a lecturer at the College, and the "Field Club" was initially affiliated to the RNBWS, for a "Life Membership" subscription of £2.00! The frontispiece of *Sea Swallow* 1 shows a splendid photograph of a Herring Gull in flight, and also an article, by John Barlee.

In 1948, the College Field Club published its first *Bird Report*, written and edited by "Cadet T.M. Gullick", assisted by "Cadet M.C. Clarkson". The latter was a midshipman, two terms senior to me in the gunroom of HMS *Vanguard*, in 1952, but sadly died in 1955. Tom Gullick is now internationally well-known as a promoter and leader of ornithological tours. This short booklet includes an article about a cruise to Ireland in HMS *Orcadia* 24-27 May, 1947, and an account of a visit to Puffin Island, off the coast of Wales.

The species list in the Dartmouth area makes interesting reading now, to compare with the latest MOD birdcounts. To select a few entries: **Cirl Bunting** "Resident. ... This bird is probably more numerous than is generally thought, as it can be easily passed by as a Yellow Bunting"; **Woodlarks** were recorded "breeding in one or two favoured areas"; **Black Redstart** were "often seen around College buildings during autumn and winter. Largest number - four on 8 November 1947"; **Peregrine Falcon** was "Resident. Probably breeds on sea-cliffs in the vicinity". **Sparrowhawk** "Quite a scarce resident"; **Manx Shearwater** "seen off mouth of harbour throughout the year"; **Great Northern Diver** "two seen on Dart at Dittisham 23 Feb'47; large size, thick neck, and stout heavy bill all noticeable"; **Black Tern** "Single bird seen from HMS *Orcadia* about two miles off Start Point 24 May'47. **Black-necked Grebe**.

"Single in winter plumage watched from about 20 yards at Slapton Ley 24 Nov'47". Pomatorhine Skua An immature female found in a state of exhaustion at Slapton Ley on 23 Nov'47. Brought back to college, but died that night. Measurements:..."; Corncrake. " Probably resident in very small numbers, as few reports received".

Listed prominently as members of that Committee were J.W. Stork Esq (Headmaster), J.C. Sugden Esq, and J.S. Barlee Esq.

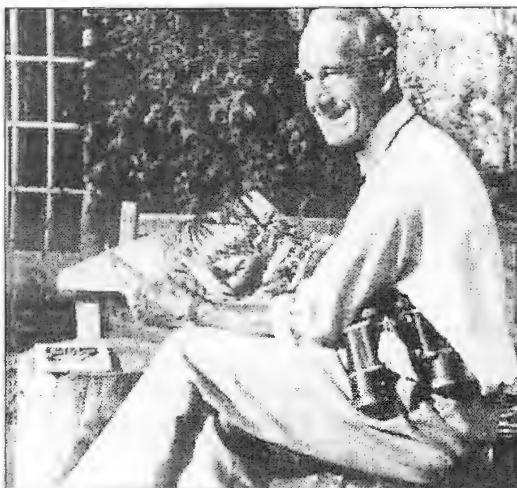
BRNC Dartmouth is very different now, with a much older intake of students but, as recorded last year (in SS 44: 30-37), a team of Young Officers under training undertook a survey of Motley Island, Falklands, 5-9 January 1995, and other plans are afoot, for the future. Richard Porter (pers. comm) writes (Apr'96): "Cirl Bunting is still recorded: only seen around Prawle - one of the last strongholds in Britain. We still get Black Redstarts in the College and we have seen them this winter. The Sparrowhawk is now fairly common, unlike 48 years ago". John Barlee is thought to be now in his mid-nineties, still living in the Slapton area.

M.B.C.

Captain G.S. Tuck, DSO, Royal Navy (1902-1984)

This Golden Jubilee issue would not be complete without adequate tribute to this remarkable man.

His energy and enthusiasm was prodigious. He was not only the architect of our society, but also the builder of the structure which survives to this day. He will long be remembered by many outside the Society, for his pioneer *Field Guide to the Seabirds of Britain and the World*, with illustrations by Hermann Heinzel (Collins, 1978). This was followed, in 1980, by his companion book *Guide to Seabirds on the Ocean Routes*. Both are the outcome of his analysis of the countless records and observations by members of the RNBWS. He had been in failing health for some years, and died on 24 July 1984. A fitting and generous tribute to him was made in this journal for that year, by Sir Nigel Henderson (see *Sea Swallow*: 33: 3)



Having dominated the scene for nearly 40 years, as both Chairman and Editor, his was a very hard act to follow, and I accepted the challenge of taking over from him (in 1981) with the greatest reluctance and trepidation. Indeed, I only did so because, in the words of my editorial for 1984 (SS 33: 3) "My only desire is that the health of RNBWS and *Sea Swallow* should continue to be a fitting and enduring memorial to Gerald Tuck and his work".

As we enter our second half-century, I can only echo those words today.

M.B.C.

SEABIRD NAMES AND THE HISTORY OF SEAFARING OBSERVERS
by Captain M.K. Barritt, Royal Navy

Seabird names preserve a fascinating record of the history of systematic observation at sea and in remote locations, and provide timely inspiration in the Jubilee year of RNBWS. For this study I have used the Checklist of Seabirds which was published in Volume 42 of this journal, and the Systematic List in the Appendix of the classic *Birds of the Ocean* (Alexander 1963). Biographies of many of the people mentioned in this article will be found in the two books written by Barbara and Richard Mearns. They and Dr W.R.P.Bourne have made helpful comments on a draft of this article, which are gratefully acknowledged.

Explorers and scientists

Two centuries ago, voyages of survey and discovery were inspired as much by scientific investigation as commercial interest. It was normal practice for men of science to accompany naval commanders of expeditions. An early example is the second voyage of Vitus Bering, the Danish navigator serving in the Russian navy, who had penetrated the Straits which bear his name, and who was sent out again in 1741 to search for the north-western parts of America. He was delighted to take with him the brilliant young German naturalist Georg Wilhelm Steller, whose journal of the voyage was published posthumously. Steller collected and investigated the avifauna in the new regions which they penetrated, recording that "... I sent my cossack out to shoot some rare birds that I had noticed ...". He sent some albatross specimens from Kamchatka to St Petersburg Museum. *Diomedea albatrus* is known as **Steller's Albatross**.

A few years later the small circle of eighteenth century European natural scientists was dominated by the great Swede, Carl Linnaeus, who is described as the father of modern taxonomy. He originated the binomial system of nomenclature. Two of his pupils took part in the voyages of the greatest explorer of the period, Captain James Cook. Daniel Carl Solander, who had been Linnaeus' closest assistant, was with Cook on his first voyage into the Pacific. *Pterodroma solandri* is known as the Providence or Solander's Petrel. Cook's Petrel *Pterodroma cookii* was named by G R Gray (Keeper of Ornithology, 1832-73), who had access to records from the voyage, which were left to the British Museum. It is a fitting tribute to Cook, whose journals illustrate that he shared with earlier explorers, such as Halley and Dampier, a keen awareness of birds and an understanding of their significance. On Mon 16 Apr 1770, the day before his landfall on the SE coast of Australia, Cook recorded: "In the PM saw an Egg Bird [tern] and yesterday a Gannet was seen, these are birds that we reckon never to go far from land. We kept the lead going all night ..." (Beaglehole 1968). Gray also named the Black Petrel *Procellaria parkinsoni* after Sydney Parkinson, the young artist and collector in the *ENDEAVOUR*, who sadly died at sea from fever contracted in Batavia.

The naturalist on Cook's great second voyage, during which he probed deep into Antarctic waters, was the German Johann Reinhold Forster. He

had established his reputation by publishing the results of extensive fieldwork in the Volga region of Russia. He was highly thought of by Linnaeus, whose methods he promoted. He is also known to have sent specimens to Linnaeus. He had translated the account of Bougainville's voyage into English, and was well prepared for his work onboard the *RESOLUTION*. His fascinating journal of the voyage has been published by the Hakluyt Society (1982). It reveals a scientific programme of observation and collection at sea, and ashore on remote islands. On passage, there are systematic daily records of bird sightings, with notes of weather (including temperature), numbers, description, and behaviour. He comments specifically on the aptness or otherwise of the Latin binomials and description given by Linnaeus. He records "Landbirds observed at sea", including Pacific Golden Plover in the approaches to the Cook Islands. Ashore in New Zealand, Tahiti and Tonga he maintained a comparative record of wader sightings, and he gives a very detailed account of the avifauna of the newly explored New Hebrides archipelago. His journal also tells us which standard bird reference works he took with him on the voyage. The record of bird names does less than justice to him since a number of other scientists, notably J F Gmelin in *Systema Naturae* (1788-93), published works which incorporated and named many new species from his records. John Latham's *General Synopsis of Birds* (1781) did at least give the name *Pachyptila Forsteri* to the Broad-billed Whale-bird. Forster's own *Descriptiones Animalium*, detailing approximately 120 species, was not published until 1844, many years after his death. He did, however, publish his studies of penguins and albatrosses during his lifetime, and it is fitting that he is the author for four penguin and two albatross species, as well as four petrels and a gull. Gray named the Emperor Penguin *Aptenoides forsteri* for him, and Nuttall's *Sterna forsteri* acknowledges his taxonomic work on specimens sent back from Hudson's Bay (1772).

Forster was a great influence on his fellow-countryman and explorer, Baron Alexander von Humboldt. The latter named the Bigua Cormorant in 1805, and his part in seabird work is enshrined in Meyer's *Humboldt Penguin Spheniscus humboldti*. In the Northern hemisphere of America, two great early field ornithologists are also remembered in seabird names. Alexander Wilson observed Wilson's Storm-petrel *Oceanites oceanicus* whilst returning by sea from New Orleans to New York at the end of his great collecting journey along the River Ohio and the Natchez Trace. John James Audubon also included seabirds in his assiduous field studies. He is the author for the Black-browed Albatross, the Western Gull and Trudeau's Tern. He took passage in a US coastguard vessel to observe seabirds off the Florida Keys, and his journal records the first sighting of the shearwater which bears his name - Audubon's Shearwater *Puffinus lherminieri*.

RN observers

During his visits to Britain to publish his great bird books, Audubon was befriended by a young Scottish ornithologist called William MacGillivray. MacGillivray named Ross's Gull *Rhodostethia rosea* from a specimen brought back by Midshipman (later Admiral Sir) James Clark Ross from his second voyage in the Arctic. Ross, perhaps the most accomplished RN

observer in this account, was acting as the naturalist for Captain William Parry's expedition. During his first Arctic voyage, with his uncle Captain John Ross, he had been greatly influenced by the astronomer onboard, Edward Sabine. Ross was with Sabine when he found and obtained specimens of Sabine's Gull *Larus sabini*. James Clark Ross became an even more successful polar explorer than his uncle, and is particularly remembered for his Antarctic voyage in command of the *EREBUS* and *TERROR*. In the Ross Sea in 1841 his surgeon, Robert McCormick, who had been a companion on the Parry voyage, noted the difference between the Polar Skua in that region and the birds which he had seen further north. His name is preserved in *Catharacta skua maccormicki*. He collected the type specimen on Possession Island.

Back at the other end of the world, another surgeon, Edward Adams, came under Ross's influence. The White-billed Diver *Gavia adamsii* is named after him. Adams' two voyages to the Arctic were in vessels which were sent to search for the missing explorer Captain John Franklin. He is commemorated in Franklin's Gull *Larus pipixcan* which was described by Dr J Richardson, his companion on two great journeys by boat and overland through the Canadian forests (Mearns 1988). Until the 1950s, one phase of the Arctic Skua *Stercorarius parasiticus* was known as Richardson's Skua.

Franklin's second transect of northern Canada was intended by the Admiralty to link up with a probe by Captain Beechey, who had been despatched into the Pacific in HMS *BLOSSOM* to search for the western end of the North West Passage. The enlightenment of the Admiralty in this period is particularly well illustrated by Beechey's instructions, which noted that some of his officers were 'acquainted with certain branches of Natural History'. Belcher's (or Band-tailed) Gull *Larus belcheri* and the Thin-billed Prion *Pachyptila belcheri* are named after Lieutenant (later Admiral Sir) Edward Belcher, who made extensive collections of specimens for the British Museum during this voyage. Belcher was a distinguished, if somewhat notorious, hydrographic surveyor of the Victorian Navy.

Other British polar exploits are marked by the Antarctic Shag *Leucocarbo (atriceps) bransfieldensis*. Edward Bransfield, a Master in the Royal Navy, is sometimes credited as the discoverer of the Antarctic continent. The whaling master William Scoresby, who later became an Anglican priest, explored Arctic seas. The Scottish zoologist Thomas Stewart Traill was a friend of Scoresby and contributed a list of species to Scoresby's published journal (1823). He also described the Dolphin Gull *Larus scoresbii* from a specimen which was almost certainly collected in the Falkland Islands during an expedition to the Southern Oceans by another great Master RN, James Weddell. Scoresby did not visit the southern hemisphere until 1856-57, when he made a voyage to Australia.

The practice of carrying scientists in RN ships was particularly strong in the Hydrographic Service. The surveying ships *FLY*, *RATTLESNAKE* and *HERALD* which worked in the Pacific and Australasia gave early field experience to a number of distinguished figures such as the young T H Huxley. His companion in the *RATTLESNAKE* was John MacGillivray, son of William, who also served as naturalist in the *HERALD* (1852-55). The Fiji or MacGillivray's Petrel *Pterodroma macgillivrayi*, found on Ngau

Island by Dr Rayner, the ship's surgeon, and the **Herald Petrel** *Pterodroma arminjoniana heraldica*, commemorates this tropical effort.

The great ornithologist John Gould was coopted by Charles Darwin to write the *Zoology of the voyage of the BEAGLE* (1838-41). His name is preserved in Gould's Petrel *Pterodroma leucoptera* and the White-breasted Cormorant *Phalacrocorax gouldi* (now *lucidus*). Sadly, Robert McCormick, who had been appointed as surgeon for the voyage, fell out with most of the Wardroom officers, and left the ship at an early stage.

National expeditions

The contribution of exploring voyages to the classification of seabirds is by no means exclusively a British one. Captain Louis Isidore Duperrey conducted a great circumnavigation in the years 1822-25. The French savants René Primevère Lesson, naval surgeon, and Prosper Garnot, published the ornithological results in *Voyage autour du monde sur La Coquille* in 1826. Lesson's name is prominent amongst the authors in seabird lists. He acknowledged his colleague's work by naming the Peruvian Diving-Petrel *Pelecanoides garnoti*, whilst in turn Garnot named the White-headed Petrel *Pterodroma lessonii*. Lesson also commemorated an earlier French explorer in the Guanay Shag *Phalacrocorax bougainvillii*, and another French surgeon-naturalist and explorer, Paul Gaimard, in the Red-legged Cormorant *Phalacrocorax gaimardi*.

In 1836-39, Captain Abel du Petits-Thouars commanded an expedition in *LA VENUS* which took the west-about route into the Pacific and voyaged to the Galapagos and Hawaiian groups and Kamchatka. His naval surgeon, Adolphe Simon Néboux conducted ornithological investigations, particularly during a prolonged period in California. When the specimens from the expedition were studied, many years later, the Blue-footed Booby *Sula nebouxii* was identified. Meanwhile in 1841, Amiral Vicomte Dumont d'Urville discovered the Adelie coast of Antarctica during his second voyage in the *ASTROLABE*, and named it after his wife. Captain C H Jacquinot, in command of the *ZELÉE* in the same expedition, is a co-author for the Adélie Penguin *Pygoscelis adeliae*.

In 1826, the Prussian Baron Friedrich Heinrich von Kitting used family connections to secure a place on a Russian expedition to Kamchatka under the command of Captain Lutke of the corvette *SENIAVINE*. One of the species which he collected was Kitting's Murrelet *Brachyramphus brevirostris*. It is interesting to note that the type specimen for this bird had been found by Captain Beechey's expedition in the *BLOSSOM* (Mearns 1992). The extent of Russian exploration and commercial effort on the Pacific coast of America in the century after Bering and Steller is often forgotten. The many specimens which were brought back were catalogued by J F Brandt, the Director of the Zoological Museum in St Petersburg. In 1838 he described Brandt's Cormorant *Phalacrocorax penicillatus*, from a specimen which was probably collected during Otto von Kotzebue's voyage of 1815-26 (Mearns 1992). The naturalist John Friedrich Eschscholtz is known to have been at the Russian settlement of Fort Ross on the Californian coast in 1824.

The United States first showed a national interest in the wider world by sending out two expeditions into the Southern Oceans. One of the naturalists on Lieutenant Charles Wilkes' Exploring Expedition of 1838-42 was Titian Ramsay Peale. He was the son of the proprietor of the Philadelphia museum where the collection of the Lewis and Clark expedition was lodged, and he had gained experience in the field with Thomas Say in the South Eastern states and on the Long expedition to the Rocky Mountains. He described the Tahiti Petrel *Pterodroma rostrata* and his name has been attached to the Mottled Petrel *Pterodroma inexpectata* (Forster) - which Alexander (1963) listed as Peale's Petrel. Further work on the records from the voyages of Wilkes was carried out by John, who also handled the reports from the US astronomical expedition of 1849-52, and Perry's voyage to the China Sea and Japan. Cassin's Auklet *Ptychoramphus aleuticus* is named for him.

Between 1865 and 1868, Commander (later Rear Admiral) Vittorio Arminjon "circumnavigated the world in the Italian corvette MAGENTA. The ornithologists Giglioli and de Filippi observed and published the first global seabird transect (Bourne 1996). They described the Atlantic race of the Herald Petrel *Pterodroma arminjoniana*, which was first taken during the voyage whilst the MAGENTA lay becalmed about eight miles off Ilha Trindade. The Magenta Petrel *Pterodroma magentae* and De Fillippi's Petrel *Pterodroma (cooki) defilippiana* result from the expedition's work in the Pacific. One of the most compendious scientific reports of all time emanated from another circumnavigation, the great oceanographic cruise in HMS CHALLENGER between 1877 and 1883. The bird records from the expedition were worked up by Philip Lutley Sclater, Secretary of the Zoological Society, and Osbert Salvin, Secretary of the BOU. Sclater's name is preserved by Buller in *Eudyptes sclateri*, the Erect-crested Penguin. Salvin's name appears in *Pachyptila (vittata?) salvini* and also *Diomedea (cauta) salvini*. The naturalist who actually took part in the voyage, writing an outstanding journal (H N Moseley, 1879), is remembered in the trinomial of the Northern Rockhopper Penguin *Eudyptes chrysocome moseleyi*. Moseley's notes remark that the Rockhoppers on the Prince Edward Islands appeared a little smaller than those which he had seen at Tristan da Cunha.

Salvin is also the author for the Markham's Storm-petrel *Oceanodroma markhami*, named for Captain (later Admiral) Albert H Markham RN, who collected seabird specimens on the coasts of Peru and Chile, providing an excellent example of an RN officer who made the most of his opportunity to observe in little frequented areas. Gray is the author for Hornby's Storm-petrel *Oceanodroma hornbyi*, another petrel of the Chilean coast, which appears to be a rare example of a seabird being named for a senior naval officer, in this instance Admiral Sir Phipps Hornby, the Commander-in-Chief Pacific Station, 1847-50. Tristram's Storm-petrel *Oceanodroma tristrani* was collected in Japan by a Lieutenant G Gunn Royal Navy, who sent it back to the Reverend Henry Baker Tristram, a founder of the BOU. Tristram is also known to have received collections of specimens from naval officers serving in the South Pacific Ocean.

Individual Field-workers

Many of the great national expeditions of the latter part of the nineteenth century and early 1900s were only made possible by private funding. Benefactors also resourced more specific private ventures. Lord Rothschild, himself a collector and researcher, financed the American Webster expedition to the Galapagos Archipelago. He named *Diomedea immutabilis*, and *Diomedea bulleri*. The latter is named for Sir Walter Buller, the great NZ ornithologist, who found the first example of the Gray-backed Shearwater *Puffinus bulleri* on a beach in New Zealand in 1884. F.W. Hutton (see below) has also commemorated him in a gull from New Zealand, *Larus bulleri*. The Astor family financed an expedition to the Galapagos. C.H. Townsend, a field worker in the Pacific and on the west coast of South America, published the results. He is remembered in Townsend's Shearwater *Puffinus (puffinus/a) auricularis* which he discovered off Clarion "Island, during one of the voyages of the US Fish Commission steamer *ALBATROSS*.

Dr William Louis Abbott (1860-1936), was a man of independent means who was able to devote his life to field work. He covered an extraordinary range of countries and no other single man contributed so much to the collections of "the US National Museum. Between 1897 and 1907 he cruised the coasts of Siam and the China Sea in his own vessel, manned by Malay sailors. He visited Sumatra and Borneo and many small islands, the fauna of which had never before been studied. Amongst the bird names which commemorate him is Abbott's Booby *Papasula abbotti*, the threatened species which is endemic to Christmas Island.

The research for this article has been greatly assisted by the classic publication of the American ornithologist Robert Cushman Murphy, *Oceanic Birds of South America* (1936). Murphy named *Pterodroma becki* after his fellow countryman and field worker Rollo Howard Beck. Both men made voyages on private yachts to study remote waterways, coasts and islands. Murphy's Petrel *Pterodroma ultima* had been sighted in considerable numbers in the central tropical and sub-tropical Pacific Ocean during the Whitney South Sea Expedition, for which Murphy was the shore-based manager. Murphy felt that an earlier record or specimen of such a plentiful bird must turn up, and waited for c20 years before publishing a description in 1949. In fact, as discussed in the seabird section of this volume (page 36) a specimen collected during Cook's third expedition, may well have been this species. Both men rightly feature in this list, as an encouragement to present day small boat observers.

Similarly, for those whose opportunity for pelagic observations is confined to ferry crossings, or nowadays a once-in-a-lifetime passage in a liner, there is encouragement from Frederick Wollaston Hutton, who published 'Notes on the birds seen during a voyage from London to New Zealand in 1866'. Early volumes of *Ibis* also contain a number of other notes by him on pelagic observations, especially in the Southern Oceans. *Puffinus (gavia) huttoni*, a sub-species found at Snares Island, is named after him.

Island observers

Four good examples of workers on island habitats are associated with the Madeiran Archipelago. Bulwer's Petrel *Bulweria bulwerii* is named after the Reverend James Bulwer, naturalist and collector, who visited Deserta Grande in 1825. Edward Harcourt was an English country gentleman and amateur naturalist who visited Madeira in 1851 and described Harcourt's or Band-rumped Storm-petrel *Oceanodroma castro*. Jouanin's Petrel *Bulweria fallax*, marks the distinguished field work in the Indian Ocean of Dr Christian Jouanin; but he is also renowned for his long-term studies on the Selvagens (Mearns 1988). Finally, the fieldwork of our RNBWS member and Local Secretary, Dr Frank Zino, and his father, P A Zino, is remembered in Zino's Petrel *Pterodroma madeira*.

Conclusion

The foregoing illustrations support the contention of RNBWS that an interest in birds is part of the natural alertness which marks out a seaman. New forms are still being designated today. There is equally important work left to do in monitoring the health of the avifauna of the oceans, islands and coasts. Our uncertain times seem likely to offer our members better opportunities than most to carry on these tasks in the remoter parts of the globe.

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FIFTY YEARS OF RNBWS OBSERVATIONS AT SEA

By Dr W.R.P.Bourne

Sailors have always been interested in birds either as food or guides, and their writings often refer to them. This was reinforced in the Royal Navy when a tradition was established during Cook's expeditions in the late eighteenth century of sending young naturalists on surveying expeditions, including such subsequently eminent people as Sir Joseph Banks and Sir Joseph Hooker, both subsequently long-serving Presidents of the Royal Society, Charles Darwin and T.H. Huxley (not to mention John MacGillivray, discussed in the reviews). Many sailors learnt to sketch and skin birds from them, and this led to the description of many new bird species, discussed previously by Captain Barratt. It is fortunate that most of the earlier finds were described by John Latham (1781-85), since it is one of the unpublicised tragedies of ornithology that owing to defective preservation before the introduction of arsenical soap (Morris 1993) and the deficiency of adequate support at home (Bartle 1993) most earlier specimens have now been lost. These activities were maintained by Admirals Hubert Lynes and J.H. Stenhouse into this century, but languished with the cuts after World War I.

These old-fashioned naturalists normally observed their birds over the sights of a gun. Observations with binoculars were introduced by an influx of young birdwatchers such as Peter Scott, Jeffery Harrison and especially Niall Rankin and Eric Duffey (1948) during World War II, and the Royal Naval Birdwatching Society was founded in 1946 to continue their work. Within a year it had 250 members and an advisory committee of senior ornithologists, and introduced forms for recording observations which were summarised in its new report *Sea Swallow*. In three years it had made such a mark that a day-long meeting with the British Trust for Ornithology was convened in London on 9 November 1949 to discuss contributions about seabirds by Professor Wynne-Edwards, Eric Duffey, James Fisher and Max Nicholson (*Sea Swallow* 3: 5-10).

Over the next dozen years forms were devised for recording seabirds, landbird migrants, birds examined in the hand, and censuses of seabirds. In 1951 a short-lived seabird ringing scheme was introduced by the National Institute for Oceanography, and by the following year the long-serving RNBWS Chairman, Captain Gerald Tuck, DSO, was plotting the seabird observations on a vast chart which eventually formed the basis for the first global seabird range-maps in his *Field Guide to the Seabirds* in 1978. In 1955 the Merchant Navy was invited to join in, and Gerald Tuck was starting to produce Sea Passage Lists of birds occurring along the main trade routes, which also became the basis for his *Seabirds on the Ocean Routes* in 1980. In the 1960s RNBWS began to receive regular reports from the North Atlantic Weather Ships, and the Meteorological Office started to forward any bird observations in all British ship's logs, which are eventually sent there.

When he found the accumulating seabird records becoming unmanageable in 1959, Captain Tuck asked me to analyse them while he continued to deal with the landbirds. We arranged to deposit them

afterwards for future reference in the Bird Room at the British Museum (Natural History), and in 1962 I reported our progress to the International Ornithological Congress at Cornell University in the USA (Bourne 1963). By now it was clear that while it was useful for the RNBWS to maintain a world-wide recording system for qualitative observations, more intensive quantitative work would require organisation on a regional basis, so in 1965 I proposed the formation of the first regional Seabird Group in Britain and Ireland. This was rapidly supported by the national ornithological societies, who were each invited to nominate a member to the otherwise elected committee, and was already in operation by the next International Ornithological Congress at Oxford in 1966, where I was also asked to be secretary of a committee to promote such activities on an international scale.

Seabird Groups and official research programmes of various sorts liaising through committees of the linked four-yearly International Ornithological and Bird Conservation Congresses and their own meetings have subsequently proliferated around the world, in a number of European countries, the Mediterranean, North America, South Africa, Sri Lanka, Australasia, and the Arctic and Antarctic, and usually soon secured official support for intensive regional research programmes. Meanwhile the RNBWS has remained the only amateur organisation with a world-wide perspective dealing with observations made between their local spheres of interest. The importance of this role is demonstrated by the surprising frequency with which RNBWS observations on seabird distribution are quoted in both the major Western Palearctic and Australasian ornithological handbooks.

Originally, RNBWS asked for reports of any interesting birds or large concentrations seen, and then the number of birds in a stated time, on the assumption that such observations should at least be comparable. Personally I have reservations about subsequent attempts to quantify such data, usually by counting the number of birds seen in ten-minute periods over a 300 metre strip on one side of a vessel, expressing the result as birds per square kilometre (Tasker *et al.* 1984, Gould and Forsell 1989). There are many variations in the size, colour and behaviour of the birds, the light, weather, and sea state, observation points and observers, the patchy or erratic distribution of some birds, their movements with the weather, and the difficulty of judging 300m exactly when an error of 50m on either side involves an area almost equal to that inside 250m. Such observations are therefore liable to be very crude (Bailey and Bourne 1972, Bourne 1982, Haney 1985, Gaston *et al.* 1987, Van der Meer and Camphuysen 1996) and manipulation of the results to reduce them to a standard measurement may magnify this.

It is moreover questionable whether such intensive observations, which are normally only feasible with moderate numbers of birds, and impractical in the important areas where birds occur at high densities and the other vast regions where there are few at all, are suitable for most amateur observers, who are presumably watching birds for pleasure. In order for the results to be of use, total concentration is required on the identification, counting and recording of every bird seen over a precise area during considerable periods

of time, and then much time and access to computing facilities to process the results which may or may not remain indefinitely available and compatible with alternatives. Few seafarers, who are paid to carry out more important watch-keeping and administrative duties which only permit them to record occasional bird observations, seem to be able to manage this except the captains of ships (and some ships doctors! Ed), who strangely often seem to have more spare time...

Thus it seems arguable that until now the main contribution of RNBWS has lain in the provision of important new qualitative distributional data, determining where both bird species and the main bird concentrations occur in areas which had been inadequately surveyed, and not in intensive quantitative studies of well-known areas. It seems doubtful whether on present form RNBWS are ever going to obtain enough detailed observations at sea to justify investment in expensive data-processing facilities (though they might be able to contribute to other inquiries). Whereas, if they continue to collect any observations they can make in inadequately-studied areas, on an opportunistic basis, it could make a much more valuable contribution. If there are any directions where it might be useful to expand RNBWS observations, possibly it is by devising additional forms to secure records of birds seen passing along the shore and at the breeding colonies.

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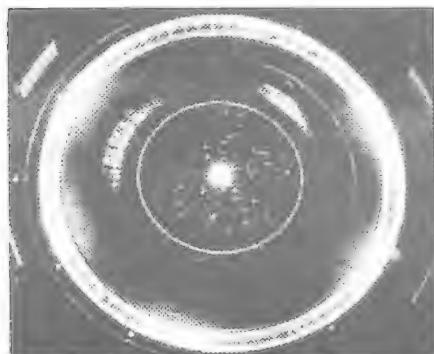
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50 YEARS OF LANDBIRD OBSERVATIONS AT SEA
by Michael Casement

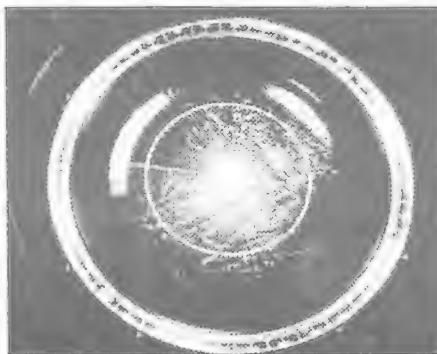
From the outset, RNBWS has been the only society organised to cope with landbird observations from aboard ships at sea, and Captain Tuck personally summarised all such reports received. In 1959 he designed the landbird report forms used to this day (specimens of which are shown in SS 12), and the data received was first presented in tabular form in 1963 (SS 16: 43-59), by sea areas, as is done today, in tables A to J. This data can thus be compared over the years, though the vast areas covered by Section I - Pacific, China Sea, Yellow Sea and Philippine Sea, makes this table rather unwieldy. He forged links with the Meteorological Office, which produce the regular flow of ornithological extracts from ships' Met Log reports, and also stimulated a steady stream of new recruits to RNBWS from the Merchant Navy. Much useful landbird data from the North Atlantic has been gleaned over many years from the annual analysis of sightings from the Ocean Weatherships, notably Station Lima, south of Iceland. There is now an accumulation of nearly 50 years of landbird data, from many oceans, in past *Sea Swallows*.

I have always been specially interested in landbirds seen at sea, as evidence of over-sea migration, especially in the Mediterranean. This dates from my first experience of this sea, as a cadet aboard the Training Cruiser, HMS *Devonshire* in September 1951. I was struck by the exciting variety of birds which landed aboard, far from land, especially whilst on passage from Crete to Italy, crossing the Ionian Sea. Many of these were then new to me, and included Woodchat Shrike, Black Redstart, several races of *flava* wagtails, and numerous unidentified pipits, larks and warblers. I was curious as to how and why these small birds should seek refuge aboard ships, and where they were heading.

Little did I then realise what a high proportion of my subsequent service career would be spent aboard ships stationed in the Mediterranean, or passing through these waters. Between the years 1952 to 1977, I have traversed this area on countless occasions aboard a wide range of ships from battleship (HMS *Vanguard*) to minesweeper, and I was able to observe similar phenomena of bird migration, across the whole breadth of the Mediterranean. From 1960-63, I served in the aircraft carrier HMS *Centaur*, which transited the area on several deployments to and from the Persian Gulf and Far East, and I made a special study of landbird migration across the Mediterranean, as observed on the ship's 10 cm radar,



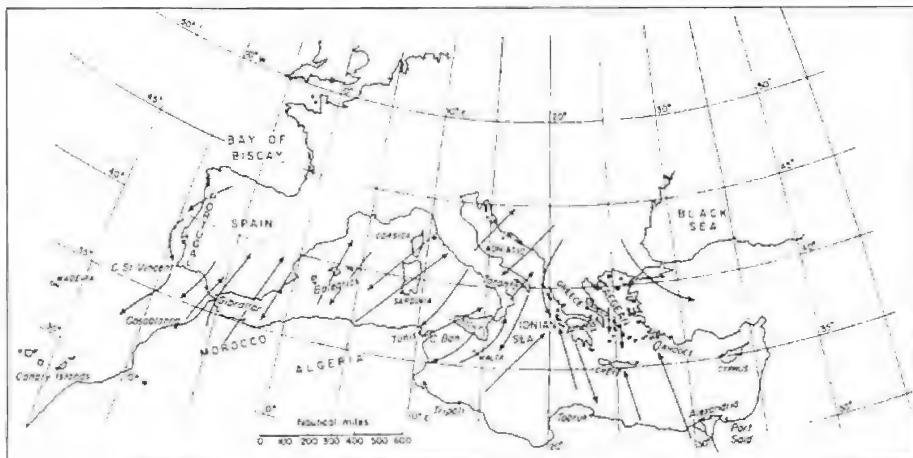
(a)



(b)

Using a personal 35mm camera, I took time-exposure photographs of a radar set to record and analyse the mass of small bird echoes passing overhead, mostly at night. One such "pair" is shown opposite taken at 20.00 on 27 September 1962, in the North Aegean. Photo (b) is a 6-minute time exposure of (a) showing two separate movements of birds - large echoes tracking NE and smaller echoes tracking SE.

My own initial observations were published in 1961, and 1962, and the late Reg Moreau, then President of the BOU, took a great personal interest, and gave encouragement with his article (1961). My radar results and conclusions for the Mediterranean, and off Portugal, were eventually published, with considerable help and encouragement from Dr. James Monk, in *Ibis* (1966), which was summarised in *Sea Swallow* by Gerald Tuck & Bill Bourne (1967).



Summary of the directions of bird migration across the Mediterranean

My hope then was that others would be stimulated to make similar radar studies in the Mediterranean and other sea areas, but none have done so from ships at sea. In 1967-68 and again in 1975-76, I tried to repeat observations in ships fitted with more modern radars but without success; radar technology had, sadly, been improved to filter out these "unwanted" echoes, unless specially tuned to look for them, and this was rarely possible.

The analysis of all landbird reports received from members was by now becoming too much for our over-worked Chairman, and, in 1974, Gerald Tuck delegated this task to me for SS 23. I have handled these records, in similar fashion for the past 22 years, whilst Bill Bourne has specialised in the analysis of seabird reports. The material received from Met. Logs has been of special interest and value, often accompanied by drawings and photographs, from which positive identifications of unusual birds can be made. I readily acknowledge the generous assistance of successive members of staff from the Natural History Museum - James Macdonald, Peter Colston, and more recently Robert Prys-Jones.

Birds of prey, especially Peregrine Falcons, Ospreys and Short-eared Owls, regularly feature, in most oceans of the world, often being carried great distances, and preying on the smaller passerine migrants also aboard. Similarly reported are various members of the heron family, and other large or

spectacularly coloured birds such as kingfishers, bee-eaters, hoopoes and pittas. For obvious reasons, these are more likely to be reported or photographed than the much more numerous "little brown jobs", so hard to identify. Many past *Sea Swallows* have been illustrated with such photographs, notably from Captain R.L. (Roy) Westwater MN, and (the late) Captain Sam Mayl MN, over the years, and a selection of these are published for the first time in colour in this journal.

RNBWS members have recorded some spectacular examples of landbird migrations. To take two extreme examples: White Storks *Ciconia ciconia* have frequently been reported crossing the Gulf of Suez, but none compare with the dramatic numbers reported by Captain P.P.O.Harrison's description from MV *Cambridge*, on 31 Aug'57 (in SS 11: 6): "In the Gulf of Suez the observers were treated to a wonderful sight; a great mass of White Storks, estimated at 100,000 crossing the Gulf from G. Hamman Sayidna Musa in a southerly direction towards Ras Shukheir. The migration was concentrated in huge flocks as far as the eye could see in both directions. Most of the birds flew only a few feet above the water, and none above 100-150 feet". On 9 May'60, in the North Atlantic, "about a thousand Snow Buntings" *Plectrophenax nivalis*, began landing aboard SS *Empress of England* during NNW gales at 53°N 30°W, nearly 1,000 miles from the nearest land - most of these were swept overboard, and by next morning only five remained, having been carried 480 miles SW (SS 13: 22).

Oddities turn up in the most unusual places, and identifications are always a problem, unless supported by adequate details, sketches and/or photographs. But it is always easier when one has confidence in the competence and experience of the observers, as for example my comment in SS 25: 17 - "The Bulge of Africa is always a fruitful area for records of landbirds (Table B). The most unusual this year is the Short-billed Dowitcher *Limnodromus griseus* recorded by Radio Officer Curtis of RFA *Reliant* on 31 Aug'74; this is thought to be the first record in this area of this North American wader, but the detailed notes in his letter leaves little doubt. (Dr David Snow, MBOU, of the British Museum, Tring, was also a passenger!)".

The pages of *Sea Swallows* contain a mass of data over the past 50 years, with observations covering most of the shipping routes, in the North Atlantic, off West Africa, Mediterranean,

The author, with eight surviving members of a "blizzard" of Quails *Coturnix coturnix*, which came aboard HMS Centaur, during heavy thunder storms in the central Aegean, in the night of 26 September 1962.



Pacific and waters around the UK, and articles by Peter Chilman (1979 and 1981) give graphic accounts of migration in the Western Atlantic, off the coast of the USA; Dave Simpson (1983) similarly describes his experiences off North Borneo. The problem is how best to summarise and to make use of this data. These "falls" of migrants aboard ships are in fact poor indicators of migration routes because, as my own radar results in the Mediterranean show, such birds are mere "flotsam" - "drop-outs" from the many thousands which pass unseen overhead at night. Birds are forced low by adverse winds and overcast skies, and it is in such conditions that they seek shelter aboard ships. But these records do provide useful evidence of the species involved in such mass movements. The largest falls often occur where the density, as shown by radar is least - as in the Mediterranean, across the Ionian Sea.

There are also numerous records of ship-assisted passages, often in the "wrong" direction, for many thousands of miles. Typically reported are the larger birds such as herons and birds of prey, the latter feeding on the smaller (usually unidentified) passerines also aboard. Cattle Egrets *Bubulcus ibis*, in particular, are regular hitch-hikers aboard ships, and I firmly believe that their spread from West Africa to North and South America was greatly assisted by this means. From the numbers of Ospreys and Peregrine Falcons regularly reported in *Sea Swallow* in the North Atlantic over the years, one would not have known these species were threatened in northern Europe. Some passerines have successfully crossed the Atlantic aboard ships, and I certainly believe that ships play a part in providing additional excitement for the "twitchers" who gather in the Scillies each autumn.

Conclusion. The wealth of landbird data published in *Sea Swallows* over the past 50 years, is unique, and I have long toyed with ideas for analysing and summarising this, in order to quantify the evidence, and to present some worthwhile conclusions. Martin Littlewood made a start with his paper (1991) covering the Caribbean, but similar analyses could usefully be done for other sea areas. It would be nice to identify the main species involved in long-distance trans-ocean migrations, and to look for evidence of the role played by ships in the dispersal or colonisation of landbird species. But I have been plagued by lack of time or expertise with computers to simplify the task involved. Here stands an interesting challenge for someone. I am open to suggestions or help from anyone, how to set about this, and also advice how best to present the results. Anyone willing and able to help please contact me.

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OBSERVATIONS OF SEABIRDS IN THE ATLANTIC AND INDIAN OCEANS
By Dr W.R.P.Bourne

The first reports of the occurrence of birds at sea are incidental comments in accounts of ancient voyages such as those collected by Hakluyt (1599). In the first half of the last century these developed into more detailed reports on the birds seen during a single voyage, such as that by Gould (1840). In the second half Hutton (1865) began to draw the first conclusions from comparisons of observations during a number of voyages. During the first half of this century the first reports of seabird breeding distribution also began to appear, notably by Gurney (1913) for the Gannet *Sula bassana*, and of more extensive investigations of the distribution of birds at sea during oceanographic surveys, notably by Jesperson (1930) in the North and Hentschel (1933) in the South Atlantic, which first showed its close relationship to marine productivity. Wynne-Edwards (1935) also began to compare observations during a number of voyages again and define the relationship between bird distribution and the distance from the shore, and Murphy (1936) to relate it to the developing knowledge of oceanography.

Thus by the time of the foundation of the Royal Naval Bird-watching Society half a century ago the outlines of marine ornithology had been laid down, and were soon conveniently summarised by Fisher and Lockley (1954) for the North Atlantic, as Murphy (1936) had already done for the South Atlantic. Little was known about the details, or what happened in the Indian Ocean or Pacific with their contrasting climatic regimes. Since then the gaps have been filled in with a mass of detail, but unfortunately nobody has provided comparable recent summaries, and it is difficult to deal with all recent progress briefly here. Therefore I shall merely list a few of the more representative contributions from *Sea Swallow* (SS), which between them range from an observation from a submarine of a Little Auk *Alle alle* swimming under the Arctic ice by L.G. Menzies (SS 17: 80), to birds migrating overhead with radar by Michael Casement (SS 13: 43-45, 14: 56-57, 19: 26-31).

In general, the growth of popular interest in birds has been followed by a vast amount of local exploration, in which the members of the RNBWS have made hundreds of contributions of variable, but often great value, both while on duty and in the course of other activities virtually everywhere. In the Atlantic they were unable to do more than locate bird concentrations and movements, and add a few species to local lists. In contrast, they have been responsible for much of the initial ornithological exploration of the Indian Ocean, revealing both the occurrence of unsuspected seasonal seabird concentrations around Arabia at a time when it was undergoing massive oil development, leading to a special study by Roger Bailey during the International Indian Ocean Expedition in the 1960s, and the conditions on the remarkable but sadly neglected central islands, when they were under consideration for the development of a military base (SS 14: 27, 16: 68-69, 17: 52-56, 18: 40-43, 25: 11-13, 32: 42-47, 41: 62), leading to a Royal Society expedition to Aldabra followed by displacement of the base to Diego Garcia.

Possibly the most original contribution in the north has been to obtain regular observations from the central North Atlantic weather ships.

E.F.Aikman and others have also plotted the distribution of such species as the skuas (SS 18: 62-64), Black-legged Kittiwake *Rissa tridactyla* (SS 15: 33) and auks (SS 11 31-33, 13: 23-25, 15: 33) along the transatlantic trade routes, and a number of people the movements of Great Shearwaters *Puffinus gravis* and Wilson's Storm-petrels *Oceanites oceanicus* from the southern hemisphere around the North Atlantic (SS 14: 54-55, 15: 50-52, 16: 64-65, 20: 40-41, 21: 13-14). Further south, Steve Ritchie and others made useful observations during a survey of the North Atlantic, Operation Navado, in the 1960s (SS 18: 55-59, 64-71), there have been many voyages through the South Atlantic to the Antarctic, and the Falkland conflict in the 1980s also led to many more in this direction (SS 9: 18-20, 10: 8-9, 22, 14: 46-50, 20: 30-34, 22: 10-15, 24: 22-23, 7-21, 26: 13-14, 32: 54-58, 33: 58-60, 34: 18-28, 35: 24-34, 36: 4-14, 41: 4-10, 43:19-28)

Similarly, trade and various unrest in the Middle and Far East has led to many voyages either around South Africa or through the Mediterranean, Suez Canal and Red Sea to the Persian Gulf and on to Singapore (SS 6: 10-11, 14: 27, 17: 41-42, 18: 77-78, 19: 26-31, 38-41, 20: 41-42, 21: 37, 40: 4-12). In addition to the visits to the central islands already mentioned there have been others to the Comoro (34: 71-76), Hanish (SS 15: 56-58), Kuria Muria (SS 34: 5-18) and Masirah Islands (SS 62: 16-19), and Sri Lanka (SS 38: 61-62, 39: 65-67), and a number to the Persian/Arabian Gulf and Gulf of Suez with their heavy bird migrations (SS 17: 81-82, 28: 15-18, 36: 15-19).

In addition to the accumulation of a vast amount of basic information about seabird distribution, now often being copied freely elsewhere without much acknowledgement, the more important results include much additional evidence for the pattern of migration by some southern species such as the Great and Sooty Shearwaters *Puffinus gravis* and *P. griseus* around the central anticyclones of the North and South Atlantic (SS 9: 23-25, 44: 49-52), and a rather similar clockwise movement around the Indian Ocean by the Flesh-footed Shearwater *P. carneipes* with the southerly monsoon, and the occurrence of important wintering areas for such species as the storm-petrels and Sooty Tern *Sterna fuscata* along the equatorial current systems. It is notable that nobody would have had the space to publish all this information if the RNBWS had not had *Sea Swallow*.

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RNBWS IN THE PACIFIC 1947-1994

By Captain N.G. Cheshire, MN

Since the establishment of the Royal Naval Birdwatching Society in 1946, very many members and associates of the Society have recorded seabirds and landbirds in the Pacific Ocean and adjoining seas. Their observations, ranging from the scientific to the humorous, and sometimes bizarre, have been recorded in *Sea Swallow* for a period of nearly fifty years. The aim of this article is to try to present some of the more interesting of these endeavours and highlights of the Society's activities in the Pacific Ocean area, in this its jubilee year.

The Korean War 1950-53 saw the deployment of a number of RN vessels in Far Eastern waters. *Bird Watching off the Korean Coast* was contributed by Cdr.(S) C.E. Smith RN, (SS6: 16-18) and he recorded: "some of the birds seen off the West Coast of Korea and the Yellow Sea from October 1952, to July 1953..... Duck - the most common species are the Common and Velvet Scoters. They first appeared in late November. Americans on one island tried to shoot them from a helicopter without success. They did, however, shoot what they said was a Snow Goose. An English officer who saw the birds said it was a swan, the more probable as Whooper Swans are seen in the area. The most memorable day of this period was 31st January. We were at Chodo and the sea was covered with great pancakes of ice. As these pancakes drifted by, thousands of Velvet Scoters came down with them. Every detail of the birds stood out clearly. This migration went on for about 2' hours, in bunches of 30 to 50 birds, and I estimated three or four thousand must have passed south in that time."

RN personnel were present during the nuclear bomb tests held on Christmas Island, from November 1957 to September 1958. Cdr. J.G.V. Holt RN summarised the bird life in *The Birds of Christmas Island (Pacific)* in SS11: 26-28: "Christmas Island has only one bird named after it - the Christmas Shearwater. This bird nests in burrows in soft sand on the islands in the lagoon and can often be seen flying through the coconut plantations. It shares its colony with the Phoenix Petrel and the ground is riddled with burrows which are very handy for the local rats and large land crabs. The moaning cries of these birds at night in the breeding season are most disturbing". The nuclear tests had an adverse effect on the birds: "Although numbers of species of birds are limited, Christmas Island can be said to be a birdwatcher's paradise owing to the closeness to which birds can be approached. For this fact it must be regretted that it has been inevitable that a number of birds, mostly Boobies, have been killed or maimed in the recent Nuclear Tests. Indeed, before one test a naval inspired expedition removed some 135 birds of four species from an area of the island where they might be affected. This expedition which flew the quite unofficial and temporary flag of the non-existent "Royal Naval Society for the Prevention of Cruelty to Animals", consisted of a combined party of sailors and soldiers, well gloved, who caught and removed the birds to a place of safety until after the test."

In 1955, membership was extended to the Merchant Navy and this led to increased activity in the Pacific area. An early and very enthusiastic recruit from the Merchant Navy was Capt. P.P.O. Harrison MN, Master in the New Zealand Shipping Company whose around the world observations were featured in SS8: 7-8. In SS10: 24 he related: "Passing through Cook Strait

(NZ) with a following gale, and amidst a great concourse of birds, the Southern Black-backed Gulls kept pace with the ship but were headed in the opposite direction!." He became a regular contributor of detailed and extensive seabird reports, many from that huge expanse of the Pacific between Panama and New Zealand. In New Zealand he received the advice and encouragement of eminent local ornithologists. Dr. R.A. (later Sir Robert) Falla, director of the Dominion Museum Wellington, and C.A. (later Sir Charles) Fleming. Several years recording birds in the South Pacific culminated with his authorship of *Seabirds of the South Pacific - A Handbook for Passengers and Seafarers*, "Containing a description of all birds that may be encountered on a voyage from New Zealand to Panama, with notes, illustrations and a guide to their identification". The book was published by RNBWS in 1962, contained illustrations by Cdr. A.M. Hughes RN and many of the photographs were supplied by the Society. Capt. G.S.Tuck, DSO, RN and Dr.W.R.P.Bourne also gave advice on the content and publication of the book.

The Society has over the years had advice from, and co-operated with, leading ornithologists from around the world. The longest on-going association has been with Dr.W.R.P.Bourne, MBOU, CFAOU who began with an article on *Migrations of the Sooty Shearwater* in SS9: 23-25. Since then, he has made many contributions to *Sea Swallow* on the taxonomy, migration, distribution and identification of seabirds and he has sought to improve the scientific value of members observations (see SS11: 20-23). For many years he has provided very detailed analyses of seabird reports and comprehensive reviews of the literature. Articles with a Pacific perspective have included *Notes on Some Museum Specimens of Petrels from Fiji*, (SS30: 37-38); *The Relationships of Manx and Fluttering Shearwaters* (SS31: 4-47); *The Appearance and Classification of the Cookilaria Petrels* (SS32: 65-71).

Steller's Albatross *Diomedea albatrus* is one of the least known and rarest of the 14 species of living albatrosses, and in 1973 the only known breeding colony was on the remote volcanic island of Torishima at 30.5°N 140.3°E in the North Pacific. Dr.W.L.N.Tickell who has made a lifelong study of albatrosses requested assistance from the Royal Navy to visit Torishima. Due to the personal influence and intervention of Admiral Sir Nigel Henderson then President of the Society, Dr.Tickell, Mr.M.Yoshii (Chief of the Japanese Bird Banding Centre) and a small naval party were landed on Torishima from HMS *Brighton* on 29 April 1973, and taken off by HMS *Antrim* on 5 May 1973. A short account of this epic expedition by Dr.W.L.N.Tickell is in SS23: 21-24: "The breeding season begins in October and ends in June, so by the time of our visit the 1972-73 season was nearly over and the young, almost fully fledged, were exercising their wings. Parents were visiting the colony very briefly and for most of the time that I was present among the birds few birds in fully developed plumage landed. On 1 May, when I was on the nesting slope all day, no adults were in sight in the morning but between 1400 and 1500 local time numbers began to come in from the sea and spent some time circling over the slopes, some of them landing occasionally. Later they all flew off and settled together on the sea about half a mile offshore in a raft of about 25 birds of all plumage types..... In May 1973, there were 24 fledglings and on the basis of the 1964 figures this would indicate a breeding population of about 57 pairs, a net increase of 31 pairs in nine years. When it is remembered

that this is almost all the world breeding population it seems dangerously low, but for a species that has been so near to extinction it is large enough to be encouraging and I hope, as a result of this reconnaissance, it will be possible to set up a base on Torishima from which to undertake a more thorough long-term investigation of this fascinating bird."

The activities of H.M.Survey vessels in the Pacific have provided unique opportunities for RNBWS members to land on remote islands and reefs and record birds from seldom visited areas. Lt.Cdr. R.O.Morris, RN wrote on *The Birds of the Gilbert Islands* (SS16: 79-83) based on his extended visits aboard H.M.S.*Cook* in 1962 and 1963: "Throughout the group the most common birds by far were the noddies. Large flocks were seen usually near the reefs, but sometimes as far as 50 miles from land. They consisted of White-capped Noddies (*Anous minutus*), but usually had a sprinkling of Common Noddies (*Anous stolidus*) amongst them, distinguishable by their larger size, browner colouring and less clearly defined and duller white cap. In August off Tabiteuea and Nonouti, very large flocks, upwards of 1,000 birds in some, were seen over shoals of fish. When small fish put up by tunny or barracuda, rise thickly, the noddies pack closely just above the water, the whole mass patterning and dipping almost like storm petrels. Between these tight packs the birds disperse somewhat, occasionally moving as a tight nucleus with outriders in an almost military formation."

Seabird Observations in Fijian Waters summarised by Lt.Cdr.M.K.Barritt RN, (SS30: 22-37) were made during survey work by HMS *Cook* and HMS *Hydra*, included his own observations, those of Capt R.O.Morris RN, independent observations by Capt J.A.F.Jenkins MN, and references to earlier literature. "The Collared Petrel *Pterodroma leucoptera brevipes* was found breeding on Kandavu in 1925, and nineteenth century accounts mention birds found in the interior of Viti Levu..... ROM recorded several in Bligh Water in January 1963, 5-20 miles SW of Yalewa Kalou, and six of the species between 80-5 miles south of Kandavu on 8 June. He saw none in Bligh Water at any other time, nor any in the eastern part of the water in January. MKB sighted a group of six in the approaches to Suva six miles south of Munivuso Point on the morning of 17 Apr'74 and a single bird in the same area as the migrating Sooty Shearwaters SSW of Levuka on 7 May."

A voyage across the equatorial Pacific by Capt W.F.J.Morzer Bruyns Netherlands MN produced a detailed and analytical report - *Birds seen during West to East Trans-Pacific Crossing along Equatorial Counter Current around Latitude 7°N in the Autumn of 1960* (SS17: 57-66). "In the subtropical parts of the Pacific the surface waters move west before the prevailing easterly trade-winds to pile up on the western sides of that ocean. Part of this water flows north and south into higher latitudes past Japan and Australia, and part flows back east from the region north of the Moluccas in a narrow stream of warm water lying between 6° and 8°N, known as the Equatorial Counter-current. This is the choice sea-lane for ships proceeding from the Indies to the Panama Canal because it shortens their voyage by one or two days, and as it turns out is also greatly favoured by seabirds from both north and south Pacific, at least during the months of October and November." He was fortunate to encounter the return migration of the Short-tailed Shearwater *Puffinus griseus*. "This was one of the star performers of the voyage. They came fast and thick between 176° and 173°W on the 3 Nov (meridian day),

flying high for a shearwater, at six to thirty feet, and with great speed, about 40-50 knots., zigzagging on a course lying between 190-200°. Flocks of up to fifty crossed our bows every 5-6 minutes, or every 1' miles, sometimes in groups, and I calculated that during daylight this day we saw up to 400,000 birds. Single birds had been seen the preceding day at 178°E., and groups of two to eight and sometimes up to forty, passed us between 168-166°W the next day. At this rate, about a million birds must pass through the funnel at 175°W running south over Howland and Barker islands and Fiji, or perhaps two million over the whole area between 178°E and 166°W daily while the passage lasts..... Land Birds - These provided the biggest surprise of all. At 1230 hrs on 10 Nov at 06°54N.123°20'W eight Ring-billed Ducks *Nyroca collaris* flew around the ship for half an hour. This position is 900 miles from the Revilla Gigedos Is. to the north and Cocos I. to the south, and 1,300 miles from land, as the duck flies..... To show this was no freak occurrence, another showed up two days later at 06°N 109°30'W."

An east to west voyage in the North Pacific aboard the M.V. *London Advocate* was described by M.E.Jones Second Officer MN. *Birds seen during a voyage from Balboa to Japan and the east Coast of Malaya* (SS17: 66-72). "9th Sept 1964, 19°41'N 159°05'W. Passed the southern tip of Hawaii at 0230hrs. No Hawaiian Petrels were seen today, and instead the most numerous species were light-phase Wedge-tailed Shearwaters and Bulwer's Petrels. The former appeared very brown above darker on the wing tips and tail, and white below with bold dark edges to the underwings and pale grey bills. The flight was slower than with the Hawaiian Petrels with fewer wingbeats as they banked in typical shearwater fashion. Six of the Hawaiian race of the Manx Shearwater *Puffinus puffinus newelli* were also seen, jet black above and white below, and much the same size as the Wedge-tails but with a more rapid flutter and glide type flight; and one similar but apparently much smaller bird similar in size to a Little Shearwater *Puffinus assimilis*. Also two White-tailed Tropic-birds."

The seas around Papua New Guinea and the Solomons are ornithologically poorly known. Early RNBWS reports from this little known area came from Capt.J.B. Mitchell MN and C/Eng R.L.Tucker both sailing in the Bank Line. More recent observations have come from Capt.D.M.Simpson MN who is one of the few people to have seen the rare Heinroth's Shearwater *Puffinus heinrothi* at sea. The bird is known only from a few specimens collected at Watom Island (New Britain), around the turn of the century and a young bird and an adult found on Bougainville Island in 1979/80. He reported on his sighting in *Heinroth's Shearwater off Bougainville Island January 1990* (SS39: 64-65): "On 21 January 1990 I sailed from Kieta, Bougainville Bound for Lae. At 1730 when off the east coast of Bougainville (in position 05°35'S 155°09'E - close off Cape L'Averdy, with the rugged Emperor Range of mountains as a background view) I spotted a party of 12 small petrels resting on the calm sea surface. I headed the ship straight for them. They took off in typical shearwater manner and flew very low across the surface with rapid wingbeats interspersed with short banking glides (this despite the total lack of wind). They settled again about a mile away, and I continued the chase in *Lae Chief*. Once again the birds broke before I could get close enough, and all I could see was that they were small dark shearwaters, perhaps 10-12" in length with long wings and long slender dark bills..... Reluctantly, I had to call off the chase as the flock was edging towards the beach. As the *Lae Chief* turned away, I saw

a lone bird on the surface which had probably splintered off the main group. We were able to approach this much closer before it took off and this time there was no doubt about the underwings; these were white except for the tips and trailing edges. The rest of the bird appeared very dark with a noticeably long and slender bill..... I firmly believe these birds were a party of Heinroth's Shearwaters in their 'home waters'."

The Pacific coast of South America, where the cold Humbolt Current pushes north into the tropics is the area of the greatest diversity of seabirds in the world. One of the first reports from this area came from AB R.Gibbs aboard HMS *Mounts Bay* (SS10: 8-9). "We left Fort Bulnes (Tierra del Fuego) that same day to proceed up the Patagonia Channels en route for Talcahuana in Central Chile. Again we traversed some of the most beautiful channels I have ever seen and ever hope to see again..... The birds we saw were surprisingly varied to the birds seen on the east coast of South America. The first birds to follow the ship were Cinnamon Skuas (*C. skua chilensis*)..... I saw one chap feeding one from his hand and wondered if this a usual practice of these birds, or perhaps they were just extra hungry at the time. On 25th October we met up with absolutely hundreds of Black-browed Albatrosses and out to port I saw a large colony of them breeding on the sheltered smooth rocky glen floor. It was the most wondrous and unexpected sight of the commission."

From further north, Capt J.B.Mitchell MN aboard M.V. *Yewbank* wrote *An Impression of Guano Birds off Peru* (SS13: 21): "The most fascinating thing about these 'convoys' of guano birds is their gregarious nature. Never anywhere else in nature can one observe convoys of birds obviously under leadership in such mixed variety. Pelicans, gannets and cormorants fly in perfect flight formations as one body at specific height, course and speed. Leaders drop back only to be replaced by others who take the lead regardless of species. As the ship crosses the convoy at speed, the birds bend and bend across the bows until they fly nearly parallel to the ship's course. Then some bright bird further aft sees an opening under the stern, the spell is broken, the tail of the convoy swiftly breaks off, reforms, and rejoins the main fleet further astern. The outward bound convoys fly high at about one hundred feet, perhaps scanning for fish, but it is the homeward bound flocks, flying at sea level, gorged with fish, which manoeuvre in this fascinating way". *The Guanay Coast* (SS19: 15-18) by Capt G.S.Tuck RN summarised the detailed passage reports of C/Eng J.O.Brinkley MN aboard M.V. *Oswestry Grange*. "Fish meal was loaded at Chimbote on the northward run. Perhaps the smell of this cargo resulted in the remarkable arrival onboard during the night of 24th July of such a welcome assortment of storm-petrels, to be discovered all over the place on the morning of 25th July at 4.5°S 81.7°W, the ship proceeding close inshore. The birds ringed with National Institute of Oceanography rings next day included: - 2 Pink-footed Shearwaters, 25 Wilson's Storm-petrels, 23 ringed and six measured; 2 Elliot's Storm-petrels, 1 White-bellied Storm Petrel, 8 Galapagos Storm-petrels, 4 measured and ringed; 2 Hornby's Storm-petrels. During the whole trip 45 different species of seabirds were identified and the total ringed rose to 40.

From November 1970 to March 1971, Second Officer S.E.Chapman MN mounted a personal expedition to the Atacama Desert in Chile to study the breeding of the Grey Gull *Larus modestus* which was then poorly known..

This gull is common in the harbours and anchorages along the west coast of South America but is unusual in that it breeds about 50 km inland at about 1800 metres elevation in the wastes of the Atacama Desert. An account of his expedition was given in SS22: 7-10 "The colony was immense and must have consisted easily of ten thousand pairs over an area of several square miles. I carefully erected a hide and next morning Peter shadowed me into it then left, so that the birds around quickly returned to their nests unaware of my presence. I set up cameras and waited for action..... As the sun climbed higher the parent bird would rise from its eggs or chicks to allow the breeze to blow beneath its body and keep the eggs cool rather than incubating them. By 1400 hours the birds would be straddling their nests with feathers on their backs fluffed up to provide insulation against the intense heat. Our thermometer showed a daily mean maximum temperature of 35°C..... Most days at about 1100 hours Turkey Vultures *Cathartes aura* would come drifting over the hills from the coast sometimes as many as 40 birds to raid the nests, sucking the contents of the eggs and causing a terrific commotion amongst the nesters. Later when few eggs remained the vultures fed on dead chicks, but were never seen to take live ones."

In the Pacific area, the two main identification problems for sea-going observers have been the separation of the seventeen almost completely dark petrels and shearwaters, and the confusing group of small petrels of the *hypoleuca* superspecies and the sub-genus *cookilaria*. With the publication of *A Field Guide to the Seabirds of the World* by Capt G.S.Tuck RN in 1978, followed by *Seabirds* by Peter Harrison in 1983, and several regional field guides and handbooks in recent years, the task is now easier. A very useful key which I used often when I first started recording petrels in antipodean waters was published in 1966 by Lt.A.Y.Norris RN - *Identification of 'Cookilaria' and Hypoleuca Petrels in the Tasman Sea and around New Zealand* (SS18: 74-77). A summary of observations in the South Pacific which included many sightings of these interesting petrels was made by P and K. Meeth - *Seabird Observations from six Pacific Ocean Crossings* (SS32: 58-65). *The Appearance and Classification of the Cookilaria Petrels* (SS32: 65-71) by Dr.W.R.P.Bourne was illustrated with flight photographs by Pand K.Meeth and W.R.Millie.

For many years the society's most active member in the SW Pacific was Capt.J.A.F.Jenkins MN who spent much of his career in the Pacific Island trading vessels of the Union Steamship Company of New Zealand. He used his unique opportunities to keep thorough and meticulous records of seabirds during most of his sea-going life, and benefited from his close association with Auckland classicist and ornithologist R.B.Sibson. His records were written up in many papers and notes, published mainly in *Notornis*, journal of the Ornithological Society of NZ. One of the most interesting papers was *Observations on the Wedge-tailed Shearwater (*Puffinus pacificus*) in the South West Pacific* (*Notornis* 26: 331-348) which was based on 18 years of observations between 1960 and 1978, and detailed the migrations of this species between the central and SW Pacific. In his *A Note on the Winter Distribution of the White-headed Petrel* (SS31: 37-38) he wrote: "In May 1981 close to the Auckland Islands (51°S 166°E), we rarely saw more than six together, and assumed that the birds had already moved northwards. However we subsequently found this to be wrong. On the night of 10 May 1981 H.M.N.Z.S. *Monowai* was anchored in the western arm on Carnley Harbour, a

mile or so from the White-headed Petrels' breeding ground at Adams Island. At approximately 2200 the deck floodlights, which had been kept off to discourage birds boarding, were put on for about ten minutes. In the light we could see what appeared to be several hundred White-headed Petrels, together with many other birds around the ship. Later 34 of these petrels were collected from the decks and released."

Landbird observations at sea are an important part of the Society's records as they indicate the route and timing of migration. Most landbird records in the Pacific area are predictably from the migration routes close to the land masses of east Asia and North and South America in spring and autumn. Examples of good 'falls' of birds on board in these areas - SS38: 49, Chief Officer B.Grandin Swedish MN: "On 24 Mar (1988) BG saw several Grey Starlings *Sturnus cineraceus* 80 nautical miles east of Honshu, Japan (37.6°N 142.8°W), and on 4 Apr a Japanese Wagtail *Motacilla grandis* 30nm north of Nansei Shoto Is. (29.2°N 131.7°W). When in the vicinity of Okinawa (26.1°N 128.1°E), a male Siberian Rubythroat *Erithacus calliope* was caught and photographed, and at least five Ryukyu Robins *E. komadori*. One female caught and photographed. [COMMENT by Editor: The photograph shown on page 50 of SS38 was of the Siberian Rubythroat NOT the Ryukyu Robin, as incorrectly captioned]. Also on board was a Red-capped Green Pigeon *Sphenurus formosae* and a Bush Warbler *Cettia diphone*. A possible Cattle Egret *Bubulcus ibis* flew past on 7 Apr when 180nm west of Phillipines (15.4°N 116.3°E).

Off the west coast of the USA, Chief Officer M.C.Littlewood MN (SS42: 51). "On 3 May in overcast misty conditions (vis 5-6nm) at 36.5°N 111.2°W, 30nm off California, MCL recorded a variety of species on board am. which remained until anchored off Oakland Ca. pm. Those identified included Wilson's Warbler *Wilsonia pusilla*, Yellow-rumped Warbler *Dendroica coronata*, a probable Yellow Warbler *D. petechia*, a probable Black-throated Warbler *D. nigrescens*, Yellow-headed Blackbird *Xanthocephalus xanthocephalus*, Brown-headed Cowbird *Molothrus ater* (2) and Barn Swallow *Hirundo rustica*."

Sometimes landbirds appear far out in the ocean, and other than being storm blown their presence is hard to explain, also landbirds will on occasions remain on board and are carried many miles from their original position. Capt.K.Salwegter Neth. MN (SS34: 62) "On 21 Nov (1983) KS recorded a crane thought to be a Whooping Crane *Grus americana* in position 46°03'N 143°42'W (650 miles SW nearest land-Queen Charlotte Is., Canada) The wind was gale force 9 from SSW. Comment (from Cdr M.B.Casement): I have discussed this remarkable record with U.S. experts who are completely baffled, but can offer no better explanation why this or any other species of crane should be so far off land; less than 100 Whooping Cranes remain in the world. A vagrant species from Asia cannot be ruled out."

This article has sought to provide a 'snapshot' of the Society's activities in the Pacific Ocean area over the past fifty years. For reasons of space and brevity many of those who have made interesting and valuable contributions have not been mentioned. There are still many ornithological puzzles in the Pacific and it is hoped RNBWS members' future observations and records will assist in solving these.

OBSERVATIONS OF SEABIRDS RECEIVED IN 1995
By Dr W.R.P.Bourne

This year there has been another increase in the number of observers, from 12 to 15 (partly through catching up on back notes) and in the volume of records. A particularly distinguished contribution has been made by the last collater, Neil Cheshire, who has been making interesting surveys off Western Australia. Continuing through the alphabet, important observations have also been made by Michael Finn in the approaches to the Red Sea. Stephen Hales and Derek Hallett have continued to exploit ferries, while the former has now reached Goa. Chris Patrick has also been back to the Antarctic and put the results into a computer. We have received some useful back notes from Beau Rowlands, who has been making repeated trips to St. Helena in the course of producing a checklist of the birds of the island.

OBSERVERS SENDING IN RECORDS IN 1995.

Dates are for 1995, unless stated otherwise.

(figures in brackets indicate number of sheets of notes received)

Mrs Jean Abbott, MV *Tasman Universe*, E Pacific-Rotterdam & return, Mar-Apr (6);

MV *Hornicloud*, S. Tomas(Guatemala)-Dover, Oct (1).

Capt N.G.Cheshire, RV *Franklin*, Voyage 3/95, Fremantle-Christmas I.- Dampier, Apr (27);
5/95 Houtman Abrolhos & return Fremantle, June (3); 6/95 Circuit to 102°E from Fremantle,
June-July (22), 8/95 Fremantle-Christmas I.- Darwin Sep-Oct (38).

R/O Michael G. Finn MV *Aries Erre*, Red Sea, Indian Ocean. Jan-June (15); MV *Fazzano*,
S. Korea-Thailand-Balboa-Houston-Lake Maracaibo, Oct-Jan'96 (7).

Mr Stephen Hales, Fishing boat *New Challenger*, Goa, Dec (2).

Messrs Stephen Hales and Derek Hallett MV *Val de Loire*, Plymouth-Santander & return, March (8).

Mr Derek Hallett, MV *Stena Europe*, Harwich-Hook of Holland, Feb (1); MV *Duchess Anne*,
Poole-St Malo, May (2).

Capt. Thomas Johannsen (German MN), Med, Black Sea, USA, Apr-May (2).

Capt G.A. Johnson, MV *Rio Salaco*, Persian Gulf-Philippines-Singapore, Jan (3); SS *Uncle John*,
North Sea, June-Oct (1).

LA (Metoc). C. Patrick RN, HMS *Endurance*, Antarctica, Chile, Mexico, North Carolina, Plymouth,
Jan-May '94; English Channel, Sep '94; Madeira, Brazil, Falklands, Antarctica, Nov-Dec '94 (16).

Mrs Judith Pentreath, Yacht *Salvation Jane*, Med/Aegean, May-June (3).

Mr B.W.Rowlands, RMS *St Helena*, Ascension-Cardiff, May-June '91; St. Helena-Cardiff, Feb '92 (4).

Col. P.J.S.Smith, RM, off Tobago, Dec (1).

Ldg. Hand (Comms) A.H. Todd, RFA *Fort Victoria*, N Atlantic, Sep-Dec '94, RFA *Sir Geraint*, N Sea-
Med & return, Sep-Dec '94 (4); RFA *Oakleaf*, Caribbean & W Atlantic, Aug-Jan'96 (5).

CPO Comms G.H. Walton, RFA *Fort George*, Channel. April-May (5); RFA *Gold Rover*, Falkland area,
Sep-Nov (20).

Bernard & Elizabeth Watts, MV *Oriana*, Southampton-West Indies, Sep (3).

NOTES ON SPECIES

(All dates refer to 1995, unless otherwise stated)

DIVERS *Gaviidae*

Great Northern Diver *Gavia immer*. AHT saw 2-3 while at anchor in Scapa Flow during 31 May-2 June, presumably immatures? An examination of 195 killed in Shetland during the *Esso Bernicia* incident early in 1979 suggested that, together with many Red-throated Divers *Gavia stellata*, they must come from not only Iceland but also Greenland and the Canadian Arctic (Heuback *et al.* 1993), and it would be useful to have more information about this migration.

PENGUINS *Spheniscidae*

Emperor Penguin *Aptenodytes forsteri*. In the Weddell Sea, CP saw birds at 69.6°S 5.0°W on 18 Jan and 76.6°S 31.0°W on 25 Jan'94. Scott Haywood, a passenger aboard cruise ship *Akademik Sergey Vavilov* (pers. comm), photographed a juvenile (completing moult) on 12 Dec'94 at 64.6°S 62.6°W, Gerlache Strait, Antarctic Peninsula. It was standing on an ice floe with two Adélies.

Adélie Penguin *Pygoscelis adeliae*. In '94, CP saw six at 69.6°S 5.0°W in the Weddell Sea on 18 Jan, and in the Bellingshausen Sea, 13 at 63.1°S 57.1°W on 21 Dec, 180 at 62.2°S 58.9°W on 22nd, 336 at 63.8°S 53.1°W on 23rd, seven at 63.5°S 56.4°W on 26 Dec; and again at 63.4°S 56.6°W on 27th, 110 at 63.4°S 56.6°W on 30 Dec (these swam faster than the ship's speed of 5 kts - wingbeat 5-21, average 14, between jumps) and seven at 63.3°S 56.8°W on 31 Dec.

Chinstrap Penguin *Pygoscelis antarctica*. In '94, CP saw 60 at 61.7°S 55.3°W off the South Shetlands on 1 Mar, three at 63.0°S 62.2°W on 18 Dec, 150 at 63.0°S 60.3°W on 19th and 38 at 63.0°S 59.3°W on 20 Dec.

Magellanic Penguin *Spheniscus magellanicus*. Off Uruguay, GHW saw 35 at 36.5°S 55.0°W on 6 Oct, and 50 at 35.1°S 55.1°W on 23 Oct.

ALBATROSSES *Diomedaeidae*

Wandering Albatross *Diomedea exulans*. In the South Atlantic, CP (in '94) and GHW had ten records of up to nine between 44-53°S and 42-57°W, east of the Falklands from Sep to Dec. In the Indian Ocean, NGC saw three between 33-34°S 106-109°E west of Cape Leeuwin between 20-24 June, and in the South Pacific JA reported nine (which surely might also have been the next species?) at 33.3°S 71.8°W west of Valparaiso on 21 April.

Royal Albatross *Diomedea epomophora*. CP saw three at 52.7°S 58.1°W off the south coast of the Falklands on 15 Dec'94.

Waved Albatross *Diomedea irrorata*. CP saw three at 5.3°S 81.8°W off northern Peru on 11 Apr'94.

Black-footed and Laysan Albatrosses *Diomedea nigripes* and *D. immutabilis*. Sailing east across the North Pacific, MGF met both 120nm NE of Midway on 15 Nov, and again at 30°N 169.0°W next day, and saw the last Black-foot at 20.4°N 141.5°W on the 20th.

Black-browed Albatross *Diomedea melanophris*. In the South Atlantic, CP (in '94) and GHW reported up to seventy 25 times between 35-61°S and 37-61°W from Sep to Dec, and CP a flock of over 6,000 behind a fishing factory ship at 50.2°S 57.1°W on 12 Dec'94. Off Chile he saw 15 at 42.6°S 72.9°W on 28 Mar'94, 80 at 38.2°S 74.4°W next day, and 7 at 35.3°S 73.4°W on 30th. In the Indian Ocean, NGC saw birds at 32-34°S 106-109°E on 20-24 June and another at 32°S 102°E on 2 July.

Shy Albatross *Diomedea cauta*. In the Indian Ocean, NGC saw 1-2 White-capped Albatrosses *D. c. cauta* five times between 29-34°S 105-114°E during 14-26 June. CP reported five at 35.3°S 73.4°W (off Chile) on 30 Mar'94, and four Salvin's Albatrosses *D. c salvini* at 38.2°S 74.4°W the previous day.

Yellow-nosed Albatross *Diomedea chlororhynchos*. In the South Atlantic, GHW saw 1-3 four times between 38-45°S 55-56°E in Oct; and in the Indian Ocean, NGC up to six 19 times between 24-34°S and 102-115°E from April to July.

Grey-headed Albatross *Diomedea chrysostoma*. In the South Atlantic, GHW

saw birds at 50.0°S 52.2°W on 15 Sep, and at 52.6°S 48.0°W on 15 Nov, also four at 54.0°S 37.0°W on 17 Nov; and in the Indian Ocean, NGC saw immatures at 34°S 107°E on 23 June, and at 33°S 106°E on 25th.

Buller's Albatross *Diomedea bulleri*. CP saw one at 38.2°S 74.4°W (off Chile) on 29 Mar '94.

Sooty Albatross *Phoebetria fusca*. In the Indian Ocean, NGC saw up to eight four times between 33-34°S and 105-17°E during 23-26 June.

Light-mantled Albatross *Phoebetria palpebrata*. CP saw one at 57.9°S 56.6°W in the Scotia Sea on 16 Dec'94, and GHW five at 54.0°S 37.0°W off South Georgia on 17 Nov.

FULMARS *Fulmarinae*

Giant Petrels *Macronectes* sp. There are 39 reports of giant petrels, of which 15 are referred to the southern species *M. giganteus*, three to the northern species *M. halli*, and 21 to neither. 34 reports of up to 44 birds come mainly from between 35-62°S and 37-58°W in the Atlantic, while CP also saw one on 25 Jan'94 at 76°S 31.0°W in the Weddell Sea, and up to eight around 61-63°S 56-62°W in the South Shetlands the following Dec. In the Indian Ocean, NGC also reports single Southern birds twice and up to three Northern *M. halli* three times between 29-34°S and 104-114°E, during 14-30 June.

Northern Fulmar *Fulmarus glacialis*. There are several southerly records, including 34 seen by CP at 47.8°N 13.4°W on 16 May'94, and two seen by AHT at 43.1°N 29.4° with a water temperature of 15.4°C on 5 Dec'94.

Southern Fulmar *Fulmarus glacialisoides*. There were 22 reports from CP (in '94) and GHW of up to 11 between 36-63°S and 37-62°W in the South Atlantic from 18 Sep to 1 March.

Antarctic Petrel *Thalassoica antarctica*. In '94, CP saw 53 at 69.6°S 5.0°W on 18 Jan, 31 at 76.6°S 31.0°W on 25 Jan, 19 at 75.8°S 27.5°W on 7 Feb, four at 69.3°S 18.3°W on 9 Feb, and singles at 66.0°S 29.9°W, and 64.5S 28.4°W on 10-11Feb.

Cape Petrel *Daption capense*. Up to thirty were reported in the South Atlantic by CP in '94, and GHW 30 times between 36-64°S and 28-61°W from September to March, and the latter saw countless birds over pilot whales and Peale's Dolphins 13nm SE of Volunteer Point in the Falklands on 26 Sep. In the Indian Ocean, NGC also saw up to 15 between 14-34°S and 102-114°E off Western Australia 21 times between June and Sep.

Snow Petrel *Pagodroma nivea*. In the Antarctic, CP recorded up to 33 nine times between 63-77°S 5-57°W in Jan-Feb and Dec'94. On 6 Feb, one knocked a hole in thin ice with its feet and then fed by pattering over it.

Prions *Pachyptila* sp. CP reported 32 birds seen at 50.2°S 57.1°W, off the Falklands, on 12 Dec'94, and GHW eight at 53.4°S 40.8°W on 16 Nov, and ten at 54.0°S 37.0°W next day as Thin-billed Prions *P. belcheri*. CP also identified 18 seen at 64.5°S 28.4°W on 11 Feb'94, and single birds at 57.9°S 61.4°W on 22 Mar'94 and at 61.3°S 56.5°W on 17 Dec'94, as Antarctic Prions *P. desolata*, which are the commonest species in those areas. He also reports 14 birds seen at 57.9°S 56.6°W in the Scotia Sea on 16 Dec '94 which appeared large and dark, with a dark bill, prominent partial collar, strong black eyestripe and small white supercilium and may have Broad-billed Prions *P. vittata*, which is unusually far south for this species. GHW saw three unidentified prions at 52.6°S 48.0°W on 15 Sep, one at 52.9°S 42.5°W on 15

Nov and five at 57.9°S 56.6°W next day, and NGC unidentified prions between 32-34° S 107-113°W (off Western Australia) on six occasions during 21-30 June.

Blue Petrel *Halobaena caerulea*. GHW saw 40 at 51.2°S 60.8°W between Elephant and South Jason Islands, in the Falklands, on 6 Nov, providing a description and drawing showing the white tip to the tail. He also saw six at 53.4°S 40.8°W on 16 Nov, and ten at 54.0°S 37.0°W next day.

Tahiti Petrel *Pterodroma rostrata*. NGC saw five at 12°S 122°E, 45nm WSW Ashmore Reef, on 11 Oct, describing them as medium-large *Pterodromas* flying singly, with the upperparts, head and upper breast dark blackish-brown with a clear-cut division from the white lower breast and belly, the bill black, the underwing dark with a narrow paler area along the centre, the flight in low arcs to about 4m above the sea surface, with occasional flapping. There are a growing number of reports of this species in the Indian Ocean (Marchant & Higgins 1990: 434), and it seems possible that they may breed there.

Herald Petrel *Pterodroma arminjoniana*. CP saw one in the pale phase at 26.6°S 45.1° on 2 Dec'94. It made long banking glides with few wing-beats 200-300m in front of ship, landed and was passed on the water. It was pale grey-brown above and on the sides, with a slightly darker eye-patch and 'W' across the wings. The chin and throat were white, belly mostly white with a diffuse grey-brown collar not appearing to meet in centre. It had a dark underwing with a white patch on the primaries extending and fading away towards the body. The tail was darker than the back, and the bill black.

Great-winged Petrel *Pterodroma macroptera*. Up to 12 were seen 15 times by NGC in June-July between 26-33°S 102-113 °E, off Western Australia.

White-headed Petrel *Pterodroma lessonii*. Individuals were seen by NGC four times in June-July between 31-33°S 102-109°E, off Western Australia.

Atlantic Petrel *Pterodroma incerta*. CP and GHW saw up to ten seven times in the South Atlantic between 30-52°S and 47-52°W during Oct-Dec, with CP also seeing 105 mostly settled in three rafts at 37.6 °S 54.3°W on 10 Dec'94.

Murphy's Petrel *Pterodroma ultima*. It should be noted that this mysterious bird, once thought to be restricted to the central South Pacific, has now been found to make a long transequatorial migration towards the west coast of North America, where it may be the long-unidentified "Black-toed Petrel" collected there during Cook's expeditions (Bourne 1995).

Fea's Petrel *Pterodroma feae*. CP reports as a Soft-plumaged Petrel a bird likely to have been this recently-recognised rarity from 17.5°N 26.5°W, off West Africa, on 16 Nov'94. He describes it as a medium-sized gadfly petrel with the body grey-brown above, white underparts with a broken breast-band, dark markings on the face, the upperwing uneven dark grey-brown, the underwing uneven dark grey with a white patch on the inner primaries, and a quick shearing flight with rapid wing-beats up to 4m above the sea. Not only are individuals now being recorded in autumn all down the west coast of Europe, but also off the east coast of North America in the spring, so that like some other seabirds they may make a circular movement around the North Atlantic. Some useful photographs have recently been published by Gantlett (1995); it seems doubtful if, as suggested, any show the similar but smaller endangered Zino's Petrel *P. madeira*, or if, as suggested by Bretagnolle (1995), these birds should be treated as races of the same species, since their bones

have now been found together, which suggests that before their numbers were reduced they must once have bred alongside each other.

Soft-plumaged Petrel *Pterodroma mollis*. CP reports two at 60.6 °S 55.6 °W in the Drake Strait (which they frequent in summer) on 21 March'94 and at 57.9 °S 61.4 °W next day. NGC also saw 162, with up to 32 in a day, between 28-34°S and 102-113°E (off Western Australia) on 26 days between June and Sep. One in the dark phase was seen with normal birds at 34°S 109°E on 20 June. The throat, breast, and belly were medium grey, with the pattern of the underwing and breast-band still discernible in good low sunlight. Marchant & Higgins (1990) give the wrong reference for Bourne (1983), where it is not accepted that, as sometimes reported, there is a distinct race *P. m. dubia*.

Dark-rumped Petrel *Pterodroma phaeopygia*. CP saw one at 5.3°S 81.8° off Colombia on 11 April '94.

Juan Fernández Petrel *Pterodroma externa*. JA reported up to three birds identified as this species on eight occasions between 26-12°S and 72-80°W in March-April, with 26 feeding over a fish shoal at 26.8°S 73.9°W on 7 March; over 50 apparently feeding at 16.7°S 78.7°W on 23 April, and over 60, and then two more flocks at 9.5°S 81.2°W next day.

Barau's Petrel *Pterodroma baraui*. NGC saw one on 15 Apr at 10°S 105°E, near the Indian Ocean Christmas Island. He describes it as a large *Pterodroma* seen at 200m, which had a white forehead, dark crown and 'W' on the back, white underparts with the underwing having dark margins and a narrow diagonal bar from the carpal joint about half-way to the body, and a gliding flight with some low arcs. On 2 July he saw another large distant *Pterodroma* with a wheeling flight, dark upperparts, and white underparts including the underwing, at 32°S 102°E, (660 nm west of Fremantle) which might also have been this species.

Stejneger's Petrel *Pterodroma longirostris*. CP identified 300 birds identified as this species (though several allies occur in the area) at 42.6°S 72.9°W (off Chile) on 28 March'94, with 15 more at 38.2°S 74.4°W next day, ten at 27.6°S 73.7°W on 6 April, two at 15.0°S 78.4°W on the 9th, and the last at 5.3°S 81.8°W on the 11th.

Bulwer's Petrel *Bulweria bulwerii*. In the Atlantic, BWR saw one at 2.8 °N 16.3°W on 26 May'91, and B & EW 15 at 44.2°N 37.6°W ahead of Hurricane Iris on 4 Sept. In the Indian Ocean, NGC saw up to seven daily between 12-25°S and 107-122°E (off Western Australia) on 18 days in April and Sep-Oct.

Jouanin's Petrel *Bulweria fallax*. GAJ reported 24 black petrels which seem most likely to have been this species in the Gulf of Oman, 40nm SE of Fujirah on 7 Jan. On the other side of Arabia, MGF also saw up to six on six occasions between March and May, 1, 30 and 45nm NE of Assab, Eritrea, twice in the Strait of Bab el Mandeb, and once off Little Aden.

SHEARWATERS *Procellariinae*

White-chinned Petrel *Procellaria aequinoctialis*. CP (in'94) and GHW reported these in the South Atlantic 13 times between 33-63°S and 48-74°W during Oct-Mar. CP also twice reported the allied race (or species) the Spectacled Petrel *P. a. conspicillata*, two at 30.0°S 47.8°W on 3 Dec'94, and one with five White-chinned Petrels at 33.2°S 51.4°W next day.

Cory's Shearwater *Calonectris diomedea*. There are ten reports from the Mediterranean, including one of two birds seen by TJ off Gallipoli on 11 Apr,

half a dozen of up to 20 by JP in the Aegean in May and June, one south of Crete and two south of Malta by CP in Nov, and over 50 11nm south of Palma, Majorca, by AHT on 30 Apr. There are 12 records from between 32-49°N 15-39°W between March and Oct in the temperate North Atlantic, B & EW seeing the largest numbers, 100 at 48.8°N 21.8°W on 3 Sep and 111 at 44.2°N 37.6°W the next day, ahead of Hurricane Iris. There are also eight reports of up to five from between 11°N-23°S and 11-39°W in the tropical Atlantic, in Nov and Feb (when they may have been on migration), and May and June (when the form *edwardsi* breeds in the Cape Verde Islands). PJSS also saw three possible birds flying north at 11.1°N 60.8°W off Tobago on 24 Dec.

Wedge-tailed Shearwater *Puffinus pacificus*. NGC recorded at least 4,279 birds between 9-28°S and 105-124°E (off Western Australia) on 45 days in April, Sep and Oct, of which only two were noted as being in the pale phase, reported to breed at Shark Bay. The largest number were 3,084+ (including one pale bird) seen off the Abrolhos Is. on the first day, 2 Apr, and the next largest 200+ at 12°S 106°E, 156nm SSE from Christmas I., on 27 Sep (the other pale bird was seen nearby the next day). Birds seen at and north of 20°S in April were in heavy wing-moult.

Flesh-footed *Puffinus carneipes*. NGC saw one at 24°S 111°E (off Western Australia) on 20 Apr, and MGF 30-40 70nm north of Mahé (Seychelles) on 12 May, and four at 1.4°N 54.5°E next day.

Pink-footed Shearwater *Puffinus creatopus*. CP saw one at 42.6°S 72.9°W off the coast of Chile on 28 Mar'94, and six at 35.3°S 73.4°W two days later.

Great Shearwater *Puffinus gravis*. In the North Atlantic, CP saw four at 42.8°N 38.8°W on 12 May'94 and B & EW five at 48.8°N 23.2°W on 3 Sep. In the eastern tropical Atlantic, where they are seldom reported, BWR saw 12 at 3.6°S 15.3°W on 25 Sep'91, 17 at 2.8°N 16.3°W next day, and 12 at 9.1°N 17.4°W on 27th. In the South Atlantic, CP saw up to 24 on three occasions between 27-44°S 45-56°W in Dec'94 and GHW up to 50 on eight occasions between 35-43°S and 55-57°W in Oct.

Sooty Shearwater *Puffinus griseus*. In the North Atlantic, AHT saw one at 51.1°N 7.7°W off Cornwall on 1 Oct'94. In the South Atlantic, CP (in '94), and GHW saw up to ten on 13 occasions between 35-58°S 37-73°W in Sep-Dec and March.

Manx Shearwater *Puffinus puffinus*. In the North Atlantic, there are five reports of up to three between 43-58°N 5-19°W by CP and AHT between May and Oct. In the South Atlantic CP saw six at 33.2°S 51.4°W on 4 Dec'94. [It should be noted that Wragg (1985; see also Walker *et al.* 1990) has now made a detailed study of the anatomy of the Manx group of shearwaters, and found they all differ and are probably best treated as separate species, including both Townsend's and Newells Shearwaters *Puffinus auricularis* and *P. newelli* in the North Pacific, and the Levantine and Balearic Shearwaters *P. yelkouan* and *P. mauretanicus*, in the Mediterranean, the last two recently referred to collectively as the Yelkouan Shearwater. Useful accounts of the first two have recently been published by Howell *et al.* 1994 and Roberson 1996].

Levantine Shearwater *Puffinus yelkouan*. JP saw up to 40 between 37-39°N 26-27°E in the eastern Aegean on ten occasions in May-June, with 817 at 39.2°N 25.8°E west of Lesbos on 8 June.

Hutton's Shearwater *Puffinus huttoni*. Off Western Australia, NGC saw three

at 28°S 113°E on 2 Apr, one or more at 24°S 112°E on 19 Apr, six at 26°S 111°E on 15 Sep, and one at 24°S 111°E on 15 Sep, with four more there next day. He described them as medium-sized Shearwaters with blackish brown upperparts extending into a dark collar, and the chin and underbody white, the underwing with dark margins and axillaries and a whitish centre, and a fast flight with occasional arcing.

Little Shearwater *Puffinus assimilis*. In the Atlantic, CP saw two at 40.6°N 32.0°W near the Azores on 13 May'94, and one at 33.2°S 51.4°W on 4 Dec'94. Off Western Australia, NGC reported up to four seven times between 24-32°S and 109-113°E between April and Sep.

Audubon's Shearwater *Puffinus lherminieri*. In the Atlantic, AHT saw over 20 at on 17 Oct. In the Indian Ocean, GAJ saw 12 40nm SE of Fujirah on 7 Jan, and one 13nm SW of Colachel, (south India) on 11 Jan, and MGF saw ten 70nm of Mahé (in the Seychelles) on 12 May.

STORM-PETRELS Hydrobatidae

Wilson's Storm-petrel *Oceanites oceanicus* In the South Atlantic and Antarctic, CP (in '94) and GHW saw up to 25 between 30-63°S and 37-61°W on 15 occasions from Oct to April. Returning along the west coast of South America, CP saw 25 at 38.2°S 74.4°W on 29 Mar'94 and two at 5.3°S 81.8°W on 11 Apr'94. NGC saw a possible bird at 25 °S 111°E (off Western Australia) on 3 April.

White-faced Storm-petrel *Pelagodroma marina*. In the little-known winter quarters, BMR saw one at 5.0°S 10.6°W (in the Atlantic) on 8 Feb'92 and CP 5 at 0.0°S 36.5°W on 9 April'94, also three at 13.9°S 78.8°W (in the Pacific) on 20 Nov'94. Off Western Australia, NGC saw 1-2 five times between 13-25° and 107-114°E in April, four at 28°S 113°E on 14 Sep and two at 18°S 108°E on 21 Sep.

White-bellied Storm-petrel *Fregetta grallaria*. In the South Atlantic, CP saw one at 37.6° 54.3°W on 10 Dec '94, and in the South Pacific three at 19.6°S 76.8°W on 8 Apr'94.

Black-bellied Storm-Petrel *Fregetta tropica*. In the Antarctic, CP saw one at 61.3°S 56.5°W on 17 Dec'94 and 61.7°S 55.3°W on 1 Mar'94, and in the South Atlantic GHW two at 53.4°S 40.8°W on 16 Nov.

Galapagos Storm-petrel *Oceanodroma tethys*. CP saw one at 5.3°S 81.8°W (off Peru) on 11 Apr'94.

Madeiran and Leach's Storm-petrels *Oceanodroma castro* and *O. leucorhoa*. It seems likely that there is persistent confusion between these two species where they occur together in the tropics, and the latter comes on board ships much more commonly. BWR reported up to nine of the first between 32°N-9°S and 11-18°W on 11 days in May-June'91 and Feb'92, and PC two at 5.7°N 33.3°W on 19 May'94, and one at 17.5°N 26.5°W on 16 Nov'94. In the east Pacific, he saw one at 2.3°N 80.4°W on 13 Apr'94. He reported a Leach's Storm-petrel at 17.5°N 26.5°W on 16 Nov'94, and TJ two at 35.7°N 6.0°W on 29 April.

Swinhoe's Storm-petrel *Oceanodroma monorhis*. A growing number have now been caught or reported around the North Atlantic and Mediterranean, from the Netherlands, Belgium, France, Spain, Italy and North Carolina, and birds have returned repeatedly to NE England and the Salvages with brood-patches, though none have yet been proved to breed (Bretagnolle *et al.* 1991 and many subsequent reports). Their identity has been confirmed by

their molecular biology (Dawson 1992), though they still pose an identification problem at sea because at least Wilson's, *Fregetta* and Leach's Storm-petrels may sometimes also have dark rumps, and the more distinctive pale shafts of the primaries, also found in the next species, which may also have reached the Atlantic, are difficult to see. They appear to occur offshore over warmer water than Leach's Storm-petrel, and a watch should be kept for them.

Matsudaira's Storm-petrel *Oceanodroma matsudairae*. On 11 Oct, NGC saw a flock of 20 and three hours later three more single birds at 12°S 122°E, 45nm WSW of Ashmore Reef (off NW Australia). He describes them as dark blackish brown overall with pale brown upper wing coverts showing as a diagonal pale line, and a deeply forked tail. The pale primary shafts were not as prominent as in birds seen north of Papua New Guinea in July and August, which were presumably in moult. The flight consisted of several flaps followed by a short glide, with occasional side swooping. One bird seen on the water alongside a Bulwer's Petrel was approximately 4/5 of its size. They could be separated from Leach's and Swinhoe's Storm-petrels by the deeply forked tail, larger size, wider wings and slower flight.

TROPICBIRDS *Phaethontidae*

Red-billed Tropicbird *Phaethon aethereus*. In the eastern Pacific, CP saw one at 11°N 80.8°W on 12 Apr'94, and JA one nearby at 18°S 81.7°W on 16 Mar. She also saw two at 20.1°N 64.8°W in the western Atlantic on 21 Mar.

Red-tailed Tropicbird *Phaethon rubricauda*. In the eastern tropical Indian Ocean, NGC saw birds at 13°S 107°E on 12 Apr, and at 15°S 107°E on 24 Sep, and two at 10°S 105°E on 29 Sep.

Yellow-billed Tropicbird *Phaethon lepturus*. In the Caribbean area, CP saw one at 22.9°N 84.7°W on 25 Apr'94 and AHT birds off Anguilla on 13 Sep, at 28.9°N 71.0°W on 28 Nov and 16.8°N 82.7°W on 17 Jan'96. In the eastern tropical Indian Ocean, NGC saw at least 150 at Christmas Island on 29 Sep, and single birds usually noted as the yellow local race *fulvus* five times between 10-12°S 105-116°E in Apr, Sep and Oct.

PELICANS *Pelecanidae*

Eastern White Pelican *Pelecanus onocrotalus*. TJ saw 100 in Constanta Port, Romaina on 9 Apr.

Pink-backed Pelican *Pelecanus rufescens*. MGF saw one 45nm SW of Hodeidah, Yemen, on 13 Feb, and found 2-4 were usually present in this port in April. There was also one at Assab (Eritrea) on 18 Mar.

Brown Pelican *Pelecanus occidentalis*. In the Caribbean area, CP saw 32 at 8.5°N 79.4°W (off Panama) on 14 Apr'94, and AHT birds off Roosevelt Roads, Puerto Rico in Aug-Oct and Belize in Nov.

GANNETS AND BOOBIES *Sulidae*

Abbott's Booby *Papasula abbotti*. NGC twice saw birds in the Indian Ocean. One seen at 10°S 105°E on 15 Apr was a solid with a long thin body, long narrow wings, and a very high, steady, flapping flight, about 50-60m above the sea. The bill was pale horn with a dark tip, the head and body white, the upperwing blackish, the tail black, the underwings white with dark blackish tips to the primaries, and it had dark flank patches. Another was seen at 11°S 109°E on 3 Oct.

Northern Gannet *Morus bassanus*. Among various reports from around Britain, TJ saw 500 birds over fish in the Lynnhaven anchorage, Norfolk, on 1 May. Further south, he saw an immature at 36.1°N 16.0°W (off Portugal) on 19 Apr. Three "Brown Boobies" reported by BWR at 21.5°N 17.6°W off the Western Sahara on 29 May'91, and birds reported by CP as Masked Boobies at 27.6°S 73.7°W on 6 Apr'94, with two at 23.0°S 75.5°W and 19.6°S 76.8°W on the next two days may also have been Gannets, as boobies are unusual here. On the other side of the Atlantic, AHT saw a Gannet at 33.7°N 78.1°W on 16 Nov and two off Miami on 4 Dec.

Australasian Gannet *Morus serrator*. Off Western Australia, NGC saw two at 29°S 114°E on 14 Jun and three at 32°S 115°E on 17 Jun.

Blue-footed Booby *Sula nebouxii*. CP saw one at 5.3°S 81.8°W on 11 Apr'94. **Peruvian Booby** *Sula variegata*. JA saw four at 7.0°S 8.1°N 80.9°W on 4 Mar, and again at 33.3°S 71.8°W on 21 Apr.

Masked Booby *Sula dactylatra*. In the South Atlantic, BMR saw three at 3.6°S 15.3°W on 25 May'91 and again at 9.1°N 17.4°W on the 27th, and CP four at 4.8°S 35.3°W on 26 Nov'94, one at 14.3°S 35.6°W on the 28th and three at 18.6°S 36.6°W next day. In the Caribbean, MGF saw 16 at 13.0°N 71.8°W on 18 Dec, and one at 13.5°N 72.5°W on 29 Dec. In the east Pacific, MGF saw 12 at ca 20°N 110°W, 90nm NE Socorro Island, on 25 Nov, and CP in '94 and JA up to 30 between 2-28°S and 74-81°W 16 times in Apr and May. In the Red Sea, MGF saw birds 90nm NE of Massawa on 8 Mar and 45 nm NE of Assab on the 11th. In the Indian Ocean, GAJ saw an immature 75m NW Cherbaniawi I. at ca 13.6°N 7°E on 10 Jan, and in the South China Sea MGF saw 14 at 9.7°N 109.7°E on 3 Nov.

Brown Booby *Sula leucogaster*. In the Caribbean area, AHT saw birds while at anchor in Roosevelt Roads, (Puerto Rico) and Road Bay, (Anguilla) in Aug-Sep, one at sea at 14.8°N 61.9°W on 6 Sep, over 50 at 18.5°N 65.6°W on 17 Oct, five at 17.0°N 62.4°W on 4 Nov, and one at 16.8°N 82.7°W on 17 Nov. In the east Pacific, CP (in '94) and MGF saw up to four at sea on five occasions in Apr, Nov and Dec between 13°N-5°S and 72-83°W. In the Red Sea and Indian Ocean, MGF saw up to ten on 14 occasions between Port Sudan and Aden from Jan to May, GAJ two off Singapore on 23 Jan, and NGC up to 24 between 10-12°S and 105-106°E three times in Apr, and twice at 12°S 122-124°E on 11-12 Oct.

Red-footed Booby *Sula sula*. CP (in '94), JA, MGF and AHT had 11 records of up to 11 from the Caribbean between 13-19°N and 62-82°W in Apr and Nov-Dec; JA and MGF five of up to at least 40 from between 4-18°N and 84-104°W (in the east Pacific), MGF five of individuals from 16.6°N 113.8°E on 27 Oct, 16.0°N 137.0°E on 8 Nov, 20.8°N 148.4°E on 10 Nov, 24.9°N 160.3°E on 12 Nov and 26.4°N 166.1°E next day spread across the west Pacific, and NGC (in the eastern Indian Ocean) 11 of up to 109 from between 9-16°S 105-111°E in Apr and Sep-Oct, where he also saw 500 going to roost 22nm east of Christmas Island on 28 Sep, and similar numbers when moored there next day.

CORMORANTS AND SHAGS *Phalacrocoracidae*

Great Cormorant *Phalacrocorax carbo*. There are several reports from the Mediterranean area, where it is mainly a winter visitor, which sometimes seem more likely to be the locally resident European Shag (qv). The most likely to

be this species seem to be 20 seen by TJ in the Piraeus on 12 Apr.

Double-crested and Olivaceous Cormorants *Phalacrocorax auritus* and *P. brasiliensis*. Seen by AHT while at anchor 6nm SE of Belize City on 9-12 Nov.

Imperial Shag *Leucocarbo atriceps*. GHW saw five at 51.9°S 58.1°W (south of the Falklands) on 3 Oct, and nine at 51.2°S 60.8°W between Elephant and S. Jason Islands on 6 Nov. A bird reported by CP as a Guanay *Leucocarbo bougainvillii* at 42.6°S 72.9°W off Chile on 28 Mar'94 seems more likely to have been this species, at that latitude.

European Shag *Stictocarbo aristotelis*. Up to four Phalacrocoracids seen by JP in the Aegean at 37.3°N 27.5°E on 17 May, 39.0°N 26.6°E on 31 May, 39.3°N 26.6°E on 4 Jun and 39.1°N 26.1°E on 10 June together with four identified by TJ as Great Cormorants (qv) off Gibraltar on 17 Apr, and 26 seen by SH & DH off Santander, Spain on 12 Apr seem more likely to have been this species.

FRIGATEBIRDS *Fregatidae*

Christmas Frigatebird *Fregata andrewsi*. NGC saw over 200 off Christmas Island on 29 Sep, and identified two out of 12 observations of frigates seen at sea between 9-18°S 105-109°E as this species. Two females at 16°S 108°E on 10 Apr had a black head, throat and shoulder spur intruding on to the white breast, which also extended on to the wing. Four males and seven females were also seen at 10°S 105°E on 15 Apr.

Magnificent Frigatebird *Fregata magnificens*. AHT saw up to four in ports and at sea all round the Caribbean. On 18 Oct JA saw a frigate at 25.7°N 68.7°W at sea to the north. CP saw 11 on 14 Apr'94 at 8.5°N 79.4°W in the Pacific off Panama.

Great Frigatebird *Fregata minor*. NGC saw over 50 at Christmas Island on 29 Sep, and up to 35 six times between 9-18°S and 105-109°E at sea. GAJ also saw possible birds further NE in the Malacca Strait at 3.6°N 99.6°E on 15 Jan and 5.5nm off Singapore next day.

Lesser Frigatebird *Fregata ariel*. NGC identified this species once or twice between 9-18°S 105-108°E in the eastern Indian Ocean, including a male at 18°S 108°E on 9 Apr and two possible females at 15°S 107°E two days later.

PHALAROPES *Phalaropidae*

Red Phalarope *Phalaropus fulicarius*. Off West Africa, BMR saw one at 12.6°N 17.9°W on 11 Feb'92, seven at 18.7°N 18.1°W next day, and one at 24.7°N 17.3°W on 13th. In the east Pacific, CP saw 30 possible birds at 42.6°S 72.9°W on 28 Mar'94, and two at 5.3°S 81.8°W on 11 Apr'94.

Red-necked Phalarope *Phalaropus lobatus*, GAJ saw over 50 phalaropes, presumably of this species, in the Gulf of Oman, 40nm SE of Fujirah, on 7 Jan.

SHEATHBILLS *Chionidae*

Yellow-billed Sheathbill *Chionis alba*. GHW saw three go SE at 50.4°S 56.5°W off the Falklands on 2 Oct.

SKUAS *Stercorariinae*

Brown and McCormick's Skuas *Catharacta (skua?) lonnbergi* or C.

maccormicki. The complexity of the problem presented by the identification of Antarctic bonxies has been demonstrated by David Parmelee (1988), who reports that they hybridise freely where their breeding ranges overlap, and the hybrids are difficult to recognise. In the Antarctic during Dec'94, CP saw birds described as Antarctic Skuas at 61.3°S 56.5°W on the 17th, 63.0°S 59.3°W on the 20th and 63.3°S 56.8°W on the 31st. On the 19th one caught at 63.0°S 60.3°W, 7nm SE of Deception Island, had been ringed on 1 Feb'84 by Dr Parmelee as an adult McCormick's Skua hatched at least a year before on Cormorant Island at 64.8°S 64.0°W, 150nm to the south, though a photograph showed a large head and bill for that species. The origin of a bird carrying a metal ring on its left leg and a yellow darvik ring labelled AE6 on its right leg, seen at 62.2°S 58.9°W on the 22nd, is apparently untraced. NGC also saw a Southern Skua at 32°S 115°E (off Western Australia) on 17 Jun.

Pomarine Skua *Stercorarius pomarinus*. It is apparently not new for bonxies to hybridise with their neighbours: Peter *et al.* (1994) report that the nuclear DNA of the Pomarine Skua indicates it results from a misalliance between a female Great Skua *Catharacta skua* and a male Arctic Skua about 400,000 years ago. In the North Atlantic, B & EW saw one at 44.2°N 37.6°W on 4 Sep and BWR birds at 21.5°N 17.6°W on 29 May'91, 12.6°N 17.9°W on 11 Feb'92 and 18.7°N 18.1°W next day. TJ saw one chasing a gull at 23.9°N 88.2°W in the western Mediterranean on 16 Apr, and MGF six at 23.9°N 88.2°W in the Gulf of Mexico on 5 Dec. Off Western Australia, NGC saw birds at 13°S 107°E on 12 Apr, 16°S 107°E on 17 Apr, 21°S 109°E on 19 Apr and 13°S 119°E on 9 Oct.

Arctic Skua *Stercorarius parasiticus*. Off West Africa, BWR saw birds at 21.5°N 17.6°W on 29 May'91 and 4.1°S 11.0°W on 8 Feb'92, two at 12.6°N 17.9°W on 11 Feb'92, four at 18.7°N 18.1°W next day and 24.7°N 17.3°W on 13th.

Long-tailed Skua *Stercorarius longicauda*. CP saw one at 37.6° 54.3°W (off Argentina) on 10 Dec'94, while NGC saw one presumably on its southward migration at 12°S 124°E off NW Australia on 12 Oct.

GULLS *Larinae*

Audouin's Gull *Larus audouinii*. AHT saw two at Palma, Majorca, on 27 Apr and up to 23 at anchor at 38.9°N 8.7°E (off Sardinia) on 1-8 May. In the Aegean, JP saw one at 37.2°N 27.3°E on 12 May, two at 37.5°N 26.9°E on 19 May, and one at 39.0°N 26.8°E on 18 June. W.F. Curtis had two records off Cape Finisterre (NW Spain), on 12 Aug, and one off the Isle of Wight on 14th, the latter probably being the first record for this species in UK waters. (see details on page 103)

Lesser Black-backed, Heuglin's, Yellow-legged and Herring Gulls *Larus fuscus*, *L. heuglini*, *L. cachinnans* and *L. argentatus*. The classification and identification of these birds is in confusion, as described elsewhere (see page 86) so they are treated together. Herring Gulls and Lesser Blackbacks were seen off NW Europe, and BWR saw a Blackback still present at 15.5°N 17.8°W off Senegal on 28 May'91. JP and AHT saw larger numbers of Yellow-legged Gulls in those places in the Mediterranean where they saw Audouin's Gulls. MGF reported up to five Herring Gulls eight times from 20 Jan to 3 Mar and Blackbacks three times from 30 Jan to 11 Mar between Jeddah and Aden, and GAJ two Lesser Blackbacks 180nm NE of Masirah I. (Oman), on 8

Jan, and Herring Gulls at 17.2°N 67.3°E in the Indian Ocean on 9 Jan, and at 9.6°N 75.9°E (35m off the Indian coast) on 11 Jan. SH reported 100 Herring Gulls in the Chapora Estuary (Goa), on 9 Dec, and MGF 2-4 Herring Gulls again at Kaesan, South Korea, on 21 Oct.

Great Black-back *Larus marinus*. TJ reported that four adult and three immature Greater Blackbacks, one distinctively oiled, followed his ship from Norfolk to 35.2°N 08.6°W, 170nm west of Gibraltar, during 3-17 May, roosting on a hatch and feeding at the galley.

Kelp Gull *Larus dominicanus*. CP saw the first immature at 33.2°S 51.4°W on 4 Dec'94, and 47 at 35.0°S 55.2°W (off the River Plate) next day, then up to three at 62.2°S 58.9°W, 63.8°S 53.1°W and 63.4°S 56.6°W (in the South Shetlands) on 22, 23 and 28 Dec'94. GHW saw two at 51.0°S 58.2°W on 14 Sep and 51.9°S 58.1°W on 3 Oct (off the Falklands).

Pacific Gull *Larus pacificus*. NGC saw two at 28°S 113°E (off the Abrolhos Is, Western Australia), on 2 Apr.

White-eyed Gull *Larus leucocephalus*. MGF saw none in the Red Sea and its approaches, until four at Port Sudan on 9 Apr, and ten off Assab on 23 May.

Sooty Gull *Larus hemprichii*. In contrast to the last species, MGF saw up to 30 between Port Sudan and Aden on 11 occasions between 23 Jan and 15 May.

Laughing Gull *Larus atricilla*. CP saw 92 at 8.5°N 79.4°W approaching Panama on 14 Apr'94, and AHT small numbers when at anchor at Road Bay (Anguilla) on 13 Sep, at Bridgetown (Barbados) on 17-24 Sep, and 6nm SE Belize City on 9-12 Nov.

Great Gull *Larus ichthyaetus*. SH saw one in the Chapora Estuary (Goa), on 9 Dec.

Mediterranean Gull *Larus melanocephalus*. SH and DH saw two off Santander on 30 March.

Brown-headed Gull *Larus brunnicephalus*. SH saw at least 200 in the Zuari Estuary (Goa), on 6 Dec, and 250 in the Capora Estuary three days later.

Silver Gull *Larus novaehollandiae*. Off Western Australia, NGC saw four at 28°S 113°E on 2 Apr, and one at 21°S 114°E on 22 Apr.

Black-headed Gull *Larus ridibundus*. SH saw ten in the Zuari Estuary (Goa), on 6 Dec, and 7 in the Capora Estuary three days later.

Brown-hooded Gull *Larus maculipennis*. CP saw 30 at 42.6°S 72.9°W (off the coast of Chile) on 28 Mar'94.

Slender-billed Gull *Larus genei*. AHT reported 104 at Cagliari (Sardinia), on 9 May, MGF up to ten in the Yemen, at Yanbu, Hodeidah and off Little Aden in Jan and Feb; and SH two in the Chapora Estuary (Goa) on 9 Dec.

Saunders' Gull *Larus saundersi*. Following the rediscovery of the Relict Gull *Larus relictus* (Sea Swallow 40: 67-68) more information is now also emerging about Saunders' Gull (Brazil, 1992, Brazil & Moores, 1993). It may now be reduced to about 2,000 birds which breed on the coastal marshes on the north side of the Yangtze delta, and winter in the estuaries from Korea and southern Japan to northern Vietnam. It is recognisable by the presence of a distinctive dark patch in the centre of the tip of its pale underwing and manner of flight, foraging low over the mudflats dropping briefly at intervals to seize its prey, which includes many crabs.

Swallow-tailed Gull *Creagrus furcatus*. CP saw six at 5.3°S 81.8°W (off the coast of Ecuador) on 11 Apr'90, and nine more at 01.1°N 80.8°W next day.

TERNS Sterninae

Whiskered Tern *Chlidonias hybridus*. SH saw one near Panjari (Goa), on 7 Dec.

Gull-billed Tern *Gelochelidon nilotica*. MGF saw one in Port Sudan on 9 Apr, SH 50 in the Zuari and 35 in the Chapora Estuaries (Goa), on 6 and 9 Dec, and NGC photographed one perched on a mooring buoy at Christmas Island on 29 Sep. It had pale plumage with a dark patch extending through the eye to the ear coverts, the body white with the mantle and wings pale grey, and the outer primary tips dark grey, and the bill black and robust for a tern.

Caspian Tern *Sterna caspia*. TJ saw one 12nm south of Cape Trafalgar on 18 Apr, and in the Yemen MGF saw three at Little Aden on 23 Jan and 11-12 Feb and one at Hodeidah on 9 Feb

South American Tern *Sterna hirundinacea*. CP saw 15 at 42.6°S 72.9°W (off Chile) on 28 Mar'94. GHW saw two possible birds, described as having a dark black cap, all white plumage, and brilliant red bill and legs, at 38.4°S 55.0°W (off the River Plate) on 6 Oct, when this species was arriving in the Falklands, and then photographed seven immature birds which settled on the flight deck at 38.3°S 55.1°W nearby on 24 Oct. Four appeared to be juveniles with a black bill, dark orange to black legs, a white forehead, mottled black crown, grey upperparts with blackish-brown bars, white underparts with buff to slightly rufous sides of the breast and flanks, and a grey tail; and three in their first winter, with a black bill, dull reddish legs, a white streak through the eye, the crown and nape mottled black, pale grey upperparts with brown tips, white underparts, and a grey tail. Claudia Wilds comments that while Common Terns may come this far south, the northern populations of the South American Tern breed in the winter and might also include birds in the more heavily-barred juvenile plumage at this season.

Common Tern *Sterna hirundo*. AHT reported numbers at Cagliari (Sardinia) on 3 May, TJ one in the eastern Dardanelles on 11 Apr, JP 2-4 three times in the Aegean in May and Jun, and SH 20 in the Chapora Estuary (Goa) on 9 Dec.

Arctic Tern *Sterna paradisaea*. A summary of RNBWS records has now been published by Bourne & Casement (1996).

Roseate Tern *Sterna dougallii*. NGC saw 103 at 28°S 113°E (off the Abrolhos Islands, Western Australia), on 2 Apr, two at 29°S 114°E on 14 June, and one at 28°S 113°E 4nm west of the Pelsaert group next day.

Bridled Tern *Sterna anaethetus*. The first seen by MGF in the approaches to the Red Sea were 100 in the Strait of Bab el Mandeb on 12 May. SH saw six in the Chapora Estuary (Goa), on 9 Dec, and NGC nine at 28°S 109°E on 7 Apr.

Sooty Tern *Sterna fuscata*. BWR saw three at 0.8°N 13.9°W in the tropical Atlantic on 9 Feb'92, and NGC up to 79 on 15 occasions in Apr, Sep and Oct between 2-28°S and 106-124°E, (off Western Australia).

Little Tern *Sterna albifrons*. AHT saw six at Cagliari, Sardinia on 9 May, and SH 20 of either this species or Saunders' Tern *S. saundersi* in the Zuari Estuary (Goa), on 6 Dec, and three in the Chapora Estuary three days later.

Peruvian Tern *Sterna lorata*. CP saw 17 at 5.3°S 81.8°W (off northern Peru) on 11 Apr'94.

Swift Tern *Sterna bergii*. MGF saw up to 40 at Aden from 24 Jan, but none in the Red Sea until 18 Mar, after which they occurred north to Port Sudan on 9

Apr. SH saw 18 in the Zuari Estuary (Goa), on 6 Dec and ten in the Chapora Estuary three days later, and GAJ a large tern in the evenings, likely to have been this species 2.5nm off Singapore, during 18-22 Jan.

Lesser Crested Tern *Sterna bengalensis*. MGF saw ten at Aden on 5 Apr, and SH 20 in the Chapora Estuary (Goa), on 9 Dec.

Sandwich Tern *Sterna sandvicensis*. MGF saw birds at Hodeidah (Yemen) on 9 and 14 Feb, and SH 11 in the Chapora Estuary (Goa) on 9 Dec.

Brown Noddy *Anous stolidus*. NGC saw up to 250 off Western Australia between 10-28°S and 105-124°W, on four occasions in Apr and Oct.

Lesser Noddy *Anous tenuirostris*. NGC saw at least 2,462 at 28°S 113°E (off the Abrolhos Islands, Western Australia), on 2 Apr, and one there on 14 Sep.

Black Noddy *Anous minutus*. BWR saw birds in the tropical Atlantic at 4.1°S 11.0°W on 8 Feb'92 and 0.8°N 13.9°W next day.

ALCIDS Alcidae

Atlantic Puffin *Fratercula arctica*. JA saw one presumably on its spring migration at 43.7°N 19.2°W (off Iberia) on 3 Apr.

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LANDBIRDS FROM SHIPS AT SEA IN 1995

Analysis by Commander M.B. Casement, O.B.E. Royal Navy

The following landbird report sheets (numbers shown in brackets) were received during the last year. Extracts are shown in the appropriate geographical sections using the observer's initials:

Mrs Jean Abbott MV *Horncloud*, 16 Oct'95, Caribbean (1); MV *Tasman Universal*, 9 Apr'95, Rotterdam-Panama (1)

Captain N.G. Cheshire MN, RV *Franklin* April '95, Fremantle-Shark Bay, Western Australia. (2)

Radio Officer M.G. Finn MN, MV *Aries Erre*, 8 Feb-23 Jun'95 Aden-Hodeida -Assab and other Red Sea ports. (2 pages of notes).

CPO G.A. Johnson MN, 13 Mar-18 Apr'95, Baltic/Kiel Canal (1); SSMDV *Uncle John*, 8 Jun-25 Oct'95, North Sea (1); Oil Production Vessel (OPV) *Seillern* 1-6 Dec'95 (1); MV *Rio Salaco*, 18-22 Jan'95, Singapore Harbour (1)

Mrs Judith Pentreath, Yacht *Salvation Jane*, Aug-Oct,'95, Eastern Med. (1)

Leading Hand (Comms) A.H. Todd RFA, RFA *Oakleaf*, 31 Aug'95- 15 Jan'96, Caribbean and W. Atlantic (7); RFA *Sir Geraint*, 11 Feb-5 Mar'95, Norwegian waters (3); 30 Apr-9 May'95, Mediterranean, (1); 1-6 Jun'95, Scottish waters, (1).

Chief Petty Officer (Comms) G.H. Walton RFA, RFA *Fort George* 19-22 Apr'95, Rosyth-Portsmouth (1); 20 Apr-4 May'95, Portsmouth & return. N. Sea (1); RFA *Gold Rover*, 24 Oct'95, Falklands waters. (1).

With the exception of some excellent reports from members of the Royal Fleet Auxiliary Service (RFAs), the number of RNBWS record forms received this year has been disappointing. But an encouraging variety of interesting records has been received from the Met. Office, Bracknell, extracted from Met. Logs of weather reporting ships - these are indicated by the notation (Met). A number of these observers are already members of RNBWS. We are greatly indebted for this valuable source to Captain E.J.O'Sullivan MN who has now succeeded Captain J.F.T. Houghton MN, in this post. We give the latter many thanks for his enthusiastic help and support over the years, and wish him well in a well-earned retirement.

SECTION A - EAST ATLANTIC (EAST OF 30°W), BAY OF BISCAY and IBERLANT, also IRISH SEA

1995

On 29 Apr, a Whimbrel *Numenius phaeopus* was photographed aboard FPV *Norna* (Capt. D.L. Rattray MN) (Met), at 56.8°N 08.8°W, 45nm west of Hebrides. AHT noted a Whimbrel on 1 Jun, whilst at anchor in Scapa Flow, Orkney.

On 29 Aug, a probable Grey Heron *Ardea cinerea* was reported (Met) aboard MV *Lepeta* (Captain A.K. Gladstone MN) at 15.7°N 18.1°W, 65nm NW Cape Verde, Senegal.

On 17 Sep, MV *Pacific Crane*. (Captain T. Greig MN) (Met) recorded a Corncrake *Crex crex* aboard in position 41.1°N 15.3°W, 320nm west of Portugal. It was identified from a photograph. (COMMENT. This position is unusual, and probably suicidal. The observer omitted to record its fate)

On 20 Sep, two Turtle Doves *Streptopelia turtur* were reported (Met) aboard MV *Appleby*. (Captain K. Milburn MN) at 12.0°N 20.0°W, 180nm SW

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Senegal. They were last sighted heading in the direction of C. Verde Is.

On 6 Oct, MV *James C. Ross*. (Capt C.R. Elliott MN) was off West Africa (noon position 09.4°N 22.1°W, 360nm SW nearest land (Bijagos Archipelago) and reported (Met): "On passage south the ship was fortunate to have Mr Nigel Milius embarked, a keen and knowledgeable ornithologist. Each day he completes survey cards as part of a seabird mapping scheme. The landbirds on this day are worthy of note:

0735z Whimbrel, circled ship half a dozen times, and then departed east.

0815z Swallow *Hirundo rustica* - one flew past

0825z Swallow two flew past. (singles also sighted 1410, 1430, 1700 and 1800)

1040z Large heron species flew by E to W. Mostly dark brown in colour...

1935z Redstart *Phoenicurus phoenicurus* (1st year M) landed on ship and still present at 1920z.

1330z Juvenile Kestrel *Falco tinnunculus* landed on ship and remained until 1400z. reappeared at 1500z and took off east at 1520z. It reappeared 1630z and stayed with the ship until c. 1200 on 7 Oct. It spent much of its time on the fore mast, the Redstart hiding somewhere on the same deck!" (COMMENT. This is a nice selection of landbird autumn migrants, all fairly typical off West Africa, but obviously drifted too far SW. The heron may have been a juvenile Grey Heron).

On 7 Nov, an "owl" was photographed aboard FPV *Vigilant* (D.L. Beveridge & S. Horsburgh) (Met) at 58.7°N 07.3°W, 25nm NNE Flannan Is., 28nm NNW Hebrides. (COMMENT. Photo was not enclosed, but Short-eared Owl *Asio flammeus* seems the most likely).

SECTION B - ENGLISH CHANNEL, NORTH SEA, NORWEGIAN SEA and BALTIC

1994

On 24 May, a male Blue-throat *Luscinia svecica*, in full breeding plumage, was photographed aboard RV *Corytes*, (Met) (Captain B. Chapman MN) at 54.3°N 02.0°E, Dogger Bight. Also noted were two Backcaps *Sylvia atricapilla* and a Sedge Wabler *Acrocephalus schoenobaenus*.

1995

AHT recorded the following species whilst operating in Norwegian waters: Golden Eagle *Aquila chrysaetos* (3), whilst at anchor Romsdalsfjord, 62.6°N 07.7°E, on 11 Feb; White-tailed Eagle *Haliaeetus albicilla* (1) and Red-breasted Merganser *Mergus serratur* (5), on 14 Feb, whilst anchored in Laerdalsfjord, 61.1°N 07.5°E. Whilst transiting south through "the Narrows", south of Haugesund (59.4°N 05.3°E), on 16 Feb, he noted: Lapwing *Vanellus vanellus* (33), Mallard *Anas platyrhynchos* (5), Wigeon *Anas penelope* (3), Long-tailed Duck *Clangula hyemalis* (1), Curlew *Numenius arquata* (1) and Turnstone *Arenaria interpres* (1). Four Long-tailed Ducks were sighted in Hemnesfjord, 63.5°N 09.1°E, also five White-tailed Eagles and three Ravens *Corvus corax*. An immature White-tailed Eagle flew past ship at anchor in Hemnesfjord on 25 Feb; and on 26th, whilst in Kristiansund harbour, AHT sighted Grey Heron *Ardea cinerea*, Hooded Crow *Corvus corone* (120+) and Eider *Somateria mollissima* (400+).

On 1 Mar, whilst at anchor in Surnadalsfjord (63.0°N 08.6°E), AHT recorded: Mallard (50+), Hooded Crow (50+), Raven (20+), Eider (150+) and Golden Eagle (1). White-tailed Eagle (2), Raven (3) and Red-breasted Merganser (8) were sighted in flight at Arasvikfjord (3.1°N 08.5°E) on 2 Mar; Eider (16), Grey Heron (1) and Red-breasted Merganser (7) were noted on 3rd, and four sightings of White-tailed Eagles were made on 5 Mar, in Hemnesfjord am. on 5th.

GAJ recorded the following species whilst transiting the Kiel Canal: White-tailed Eagle (a good view of one perched on a dead tree, before flying across the vessel) at Hohenhoorn on 13 Mar, and a Woodcock *Scolopax rusticola*, sitting on a wall at Brunsbuttel locks on 15th; Eider Duck (10), 10nm east of Gotland on 16th. A Goldcrest *Regulus regulus* was noted at 59.8°N 24.7°E on 15 Apr, and two White Wagtails *Motacilla alba* and 20 Eiders on the return transit through the canal on 18th.

GHW recorded two Collared Doves *Streptopelia decaocto* resting aboard in the Dover Straits on 19 Apr, and a Redstart *Phoenicurus phoenicurus* survived hitting the bridge window, on entering Portsmouth.

At 1200 on 4 June, an adult Swallow *Hirundo rustica* was photographed aboard MV *Seilean*. (Captain D. Tobin) (Met) at 58.4°N 0.9°E, Donan Oil Field. It was observed perched on rails of bridge, during poor vis (fog), and was around a couple of hours.

From Leman Field, southern North Sea, GAJ found a dead Blackcap (M) aboard on 8 Jun. On 30 Jun, Collared Doves (2), House Martin *Delichon urbica* and Starling *Sturnus vulgaris* (3) were noted aboard.

On 2 Aug, in Machar Field, GAJ recorded Ringed Plover *Charadrius hiaticula* (2), and a Willow Warbler *Phylloscopus trochilus* aboard.

During the period 11-18 Sep, MV *Seilean*. (Captain D. Tobin MN) was stopped and producing oil from Donan Oilfield (58.4°N 00.9°E, 75nm NE Kinnairds Head), and made the following report (Met):

Weather cloudy, occasional rain, good vis, wind generally SE-NE 10-20 Kts. Numerous small birds were seen and photographed aboard including: Robins *Erithacus rubecula*, Pied Wagtails *Motacilla alba*, Blackcaps, Starlings, Chaffinch *Fringilla coelebs*, Redwing *Turdus iliacus*, Snipe *Gallinago gallinago*, Dunlin *Calidris alpina* and a Kestrel *Falco tinnunculus* (F). The Kestrel perched high on the derrick or cranes, and was seen to eat smaller birds on two occasions. The Dunlin took up residence on the heli-deck, and the Snipe on the main deck. (COMMENT. This is an interesting variety of species, typical of what pass in great numbers across the North Sea from Scandinavia to W. Europe in autumn. The behaviour of the Kestrel is typical, and I have personally seen several times (in the Mediterranean), Kestrels catch and eat small birds on the wing - "In-flight refuelling").

A similar migratory passage was experienced during the period 15-18 Sep, by MV *Northia* (Captain A. Lowery MN), on passage Moray Firth to Fulmar Oilfield (56.5°N 02.2°E, Central N. Sea, 175nm SW Norway). The following extract is from the Met. report received:

At least ten species of small birds were "identified" aboard am. on 16th, including Golden Plover *Pluvialis apricaria* (8), Lapwing (2), possible Sanderlings *Calidris alba* (3+), Robin (2), Mistle Thrush (COMMENT. *Turdus* sp. but Fieldfares more likely), Redstart *Phoenicurus phoenicurus* (2), Wheatear *Oenanthe oenanthe* (4), Blackcap (2), Goldcrest (1), White Wagtails

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(3), many unidentified small warblers (possibly Whitethroats *Sylvia communis* and *phylloscopus* warblers - Willow/chiffchaffs?), Meadow Pipit *Anthus pratensis* (1), Linnet *Carduelis cannabina* (several). Three species of birds of prey were aboard including Kestrel (3), Peregrine Falcon *Falco peregrinus* (1) and Sparrowhawk *Accipiter nisus* (6). The Kestrels and Peregrine appeared to have taken up station. They left when ship headed out to sea on 17th and were replaced by the six Sparrowhawks on 18th, when at 56.0°N 00.7°E; they feasted happily together on the small birds. The weather on 15th/16th was overcast, good visibility with winds northerly Force 3-4. (COMMENT. This impressive passage of migrant birds is not unusual at this time of the year; they would have been en route from Scandinavia to W. Europe (and Africa), and the falcons and sparrowhawks typically take advantage of such easy prey, by taking station on oil rigs and passing ships).

On 11 Oct, GAJ recorded the following species, 18nm east of Sunderland: Grey Wagtail *Motacilla cinerea*, Chaffinch, Starling, Meadow Pipit and Sparrow Hawk.

On 13 Oct, during foggy weather and southerly winds, GAJ recorded the following migrants aboard in "Lomand Field", Blackbird *Turdus merula* (1), Starling (19 - 8 found dead 15th), Goldcrest (2, found dead 14th), Redwing *Turdus iliacus* (1 dead). On 18th, a Blackcap (M), and a Reed Warbler *Acrocephalus scirpaceus* - later found dead on 20th.

On 19th, on Montrose Field (57.5°N 01.4°E), a Blackcap (M), a Goshawk *Accipiter gentilis* (juv) and 15 Starlings were aboard - some were subsequently eaten by the Goshawk. At 0600 on 21st, 100+ unidentified small migrants were seen flying in circles, apparently disorientated by orange lights and rig flares. The bird movement was southerly, winds N'ly force 8. A Grey Wagtail was identified at 1400. Two Blackcaps (M+F) were aboard on 23rd, also Starlings (50), Chaffinch (3) - attempts were made to feed these on "Alpen". The Goshawk roosted overnight in crane, and ate a Starling for breakfast. The Goshawk was still present at 0640 on 25th; a Meadow Pipit was found dead.

On 1 Dec, GAJ recorded eight Starlings aboard in Donan Field; also four possible Arctic Redpoll *Carduelis flammeus* aboard 5 hours (one later found dead - "white rump and two white wing-bars noted"), also a Meadow Pipit, found dead. Winds were SSE force 8.

SECTION C - WEST ATLANTIC (WEST OF 30°)W

1995

At 1045 on 9 Apr, JA recorded a probable Cattle Egret *Bubulcus ibis*. aboard at 21.2°N 62.8°W (140nm NNE Virgin Is.) The ship was proceeding 240° @ 19kts, and the egret was still aboard at nightfall.

MV *Jostelle* (Captain J.M. Bullard MN) reported (Met) a bird of prey aboard at 1000L 7 Oct at 33°N 55.2°W, (mid-Atlantic), 450nm east of Bermuda. It was identified from sketch as juv. Peregrine Falcon *Falco peregrinus*. "It was seen eating a small dark-grey/black bird, possibly a swift". (COMMENT. The prey may have been a storm-petrel.)

Another Peregrine Falcon was recorded (Met) on 7 Oct by SS *Queen Elizabeth 2* (Captain J. Burton Hall, RNR), on passage Southampton to New York. One was reported aboard at 44.9°N 60.2°W - this may have joined

previous evening, when ship passed 14nm off Cape Race. It fed on dwindling flock of "warblers", stooping on them in spectacular dives, and was last seen on 9 Oct, 120nm south of Nova Scotia. One of the warblers flew into the QM's office and was caught and sketched, but could not be identified from the books available on board.

On 12 Oct, MV *Appleby* (Captains I.C. Gravatt & G. Mair), was on passage Port Talbot to Baltimore, and recorded (Met) a bird of prey aboard at 36.8°N 65.9°W, (350nm SE Cape Cod). Description: "50-60cm long, with dark brown to black back and wings. yellow and black speckled front and head, thin white trim to end of tail feathers, and light coloured legs". The hawk stayed with vessel for the rest of the morning, gliding along the starboard side, occasionally landing or attempting to land on the foc'sle or side rails, or swooping off, appearing to chase something, possibly the small "chaffinch-like bird" which had appeared aboard during the previous couple of days. (COMMENT. Behaviour and description suggests probable Peregrine Falcon - Merlin *Falco columbarius* is much smaller - 25-30cm. Both falcons are commonly reported by ships in this area, especially during autumn migration, feeding on warblers and other small passerines).

Yet another Peregrine Falcon was recorded (Met) aboard SS *Queen Elizabeth 2*. (Captain R.W. Warwick MN), on passage New York to Southampton. This came aboard on 29 Oct at 41.4°N 66.W°E, 175nm east of Cape Cod, and remained four days until last seen at 1200 2 Nov, at 50.5°N 17.0°W, 500 miles west of Land's End - a distance of 2,600nm Co. 076°T. (COMMENT. Peregrines are commonly reported hitch-hiking aboard ships, in many oceans of the world, especially during autumn migration, but this is an unusually long journey. They regularly feed on small migrant birds also aboard.)

16-20 Nov, AHT was berthed alongside, 3nm south of Wilmington City, N. Carolina, with a good view across the Cape Fear River, from where he recorded a wide range of raptors and other birds. These included: Turkey Vultures *Cathartes aura* (40+), Red-tailed Hawks *Buteo jamaicensis* (10+), and Hen Harrier *Circus cyaneus* (2). As the ship got underway, turning in the river, on 20th, a Red-tailed Hawk, a Peregrine and a Sharp-shinned Hawk *Accipiter striatus* were sighted perched in trees on nearby Eagle Island.

During the period 18 Dec to 4 Jan'96, AHT identified the following species seen in the vicinity of the US Naval Base, Port Canaveral, Florida: Little Blue Heron *Egretta caerulea*, Great Blue Heron, Cattle Egret, Snowy Egret *Egretta thula*, Great Egret *Casmerodius albus*, Wood Stork *Mycteria americana*, Glossy Ibis *Plegadis falcinellus*, Moorhen *Gallinula chloropus*, American Coot, *Fulica americana*, Ruddy Turnstone *Arenaria interpres*, Turkey Vulture, Black Vulture *Coragyps atratus*, Osprey *Pandion haliaetus*, Belted Kingfisher *Megaceryle alcyon*, European Starling *Sturnus vulgaris*, Common Grackle *Quiscalus quiscula* Boat-tailed Grackle *Quiscalus major*, and American Crow, *Corvus brachyrhynchos*.

SECTION D - GULF OF MEXICO AND CARIBBEAN

1995

AHT recorded the following species ashore in the US Naval base, Roosevelt Roads, Puerto Rico, 31 Aug-2 Sep: Cave Swallow *Petrochelidon fulva*, Greater

Antillean Grackle *Quiscalus niger*, Zenaida Dove *Zenaida aurita*, Gray Kingbird *Tyrannus dominicensis*, Mangrove Cuckoo *Coccyzus minor*, Great Egret *Casmeroides albus*.

On 10 Sep, AHT identified the following species during a walk ashore in Anguilla, (Road Bay Salt Pond):

White-cheeked Pintail *Anas bahamensis* (2), Black-necked Stilt *Himantopus mexicanus*, Willet *Catoptrophorus semipalmatus*, Ruddy Turnstone *Arenaria interpres*, Least Sandpiper *Calidris minutilla*, American Kestrel *Falco sparverius*, Zenaida Dove, Pearly-eyed Thrasher *Margarops fuscatus* and Bananaquit *Coereba flaveola*.

During a walk ashore in the south of Monserrat on 5 Oct, AHT identified: American Kestrel, Red-necked Pigeon *Columba squamosa* (2), Zenaida Dove (many), Common Ground Dove *Columbina passerina* (1), Pearly-eyed Thrasher (2), and Smooth-billed Ani *Crotophaga ani* (10+).

AHT recorded the following sightings of Peregrine Falcons *Falco peregrinus* at sea:

Two (one adult + one imm.) aboard at 1100 on 10 Oct at 16.5°N 68.4°W, approx 100nm SW Puerto Rico. Both remained aboard for at least five hours, but disappeared following gunnery firings! At 1540 on 13 Oct, one circled ship briefly at 16.2°N 68.7°W, 120nm SSE Dominican Republic; seen to be carrying a small passerine. An immature (possibly the same as on 10th) was perched aboard at 1540, at 16.2°N 70.0°W. An Osprey *Pandion haliaetus* landed aboard at 1845 at 16.4°N 70.0°W.

At 0800 on 18 Oct, AHT saw an unidentified heron (possibly a Great Blue Heron *Ardea herodias*) which flew past heading ESE at 16.7°N 79.2°W, 110nm SW Jamaica. A Snowy Egret *Egretta thula* was identified, also heading SE, at 1015 at 17.1°N 79.5°W. A large-scale southward movement of warblers was observed throughout the afternoon (noon position: 17.3°N 79.8°W). Tentative identifications were made of Magnolia Warbler *Dendroica magnolia* and Cape May Warblers *Dendroica tigrina*. The wind was ESE/3.

On 15 Oct an "Egret" was reported (Met) aboard MV *Leonia* (Captain M.A. Geddes MN) at 17.6°N 80.6°W, 90nm south of Grand Cayman. (COMMENT. No description was given, but most likely here is Cattle Egret *Bubulcus ibis*.)

Whilst at anchor off Georgetown, Grand Cayman (19.3°N 81.23°W), on 22 Oct, AHT recorded an adult Peregrine perched in the rigging, at 0800 and again at 1800 - possibly the same bird. Nine Ruddy Turnstones and a Northern Mockingbird *Mimus polyglottos* were seen ashore in Georgetown on 23rd. A Peregrine spent most of the afternoon of 26th, perched in the RAS rigging, and three Cattle Egrets were aboard for brief periods. Posn: approx. 50nm south of Dominican Republic (17.7°N 69.3°W). A group of 13 Cattle Egrets was sighted heading south at 0815 on 27 Oct at 18.7°N 66.1°W (15nm north of San Juan, Puerto Rico).

On 6 Nov, a probable Peregrine was reported to AHT (identity not confirmed) briefly aboard at 1100, in position 17.0°N 72.4°W, (70nm south of Haiti). On 11 Nov, whilst at anchor 6nm SE of Belize City, AHT saw a group of 13 Snowy Egrets flying past.

On 7 Dec, AHT sighted six Cattle Egrets in flight, at 20.9°N 85.9W, in the Yucatan Channel, and three came aboard at 1100 on 12th, 18.1°N 83.1°W, approx. 125nm NE Honduras

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SECTION E - MEDITERRANEAN

1995

On 30 Apr, AHT recorded: Collared Dove *Streptopelia decaocto* aboard at 0800 when 11nm south of Palma, Majorca, and a Subalpine Warbler *Sylvia cantillans* aboard at 1815 at 38.9°N 05.9°E. A Barn Swallow *Hirundo rustica* and six Sand Martin *Riparia riparia* were sighted astern of ship at 2000 at 38.9°N 06.4°E. On 1 May, whilst at anchor in Gulf of Teulada, Sardinia (38.9°N 08.7°E) he recorded a Bonelli's Warbler *Phylloscopus bonelli* aboard, and three Sparrowhawks *Accipiter nisus* were sighted over adjacent hills.

AHT noted "many 100s" of Common Swift *Apus apus* airborne over the town of Cagliari on 3rd, and two were observed at 39.3°N 07.6°E (50nm NW Cape Teulada) on 5th. At 2100 on 9th, a single Greater Flamingo *Phoenicopterus ruber* flew across the ship's bows (heading south at 15kts), when 1nm south of Cagliari.

A useful Met report was received from MV *Seki Cedar* (Capt P.W. Jackson MN - member RNBWS):

At 2000 on 28 Oct, a Grey Wagtail *Motacilla cinerea* arrived aboard at 36.6°N 02.1°W (9nm off C. de Gata, SE Spain). It spent the night in Master's cabin, and left at 0945z on 29th at 38.4°N 01.7°E, flying off south. On 30th, 1230-1330, whilst transiting Bonifacio Strait W to E, a Black Redstart *Phoenicurus ochruros* (F), was aboard 30 mins. At 0700 on 31st, whilst awaiting pilot 5nm off Civitavecchia (W. Italy), two Black Redstarts and a Robin were seen aboard, catching insects. On 3 Nov, when 26nm west of Ibiza (36.0°N 0.6°W), two Robins and three Black Redstart (M + 2F) were noted. It was thought possibly these were those seen off Italy on 31 Oct.

JP, aboard Yacht *Salvation Jane* cruising around Turkish coast Sigacik to Bodrum 13 Sep-9 Oct reported: "rather quiet - too many other boats... and hardly any birds". She recorded: Eleanora's Falcon *Falco eleonorae* off Ghaideros I. on 4 Aug; Kingfisher *Alcedo atthis* - one aboard briefly off Kos at 37.9°N 27.3°E on 2 Sep; 4 at Ekincik on 10 Sep; 3 at Karac-Auren 13-14 Sep; 8 at I. Tersane on 14 Sep and one at 36.1°N 29.6°E on 23 Sep. 10-11 Night Herons *Nycticorax nycticorax* were seen 1930 on 21 Sep at Kas flying to feeding grounds at dusk.

SECTION F - RED SEA AND GULF OF ADEN

1995

3 Apr, a probable Cattle Egret *Bubulcus ibis* aboard MV *Moreton Bay* (Capt. G.J.H. Peaston MN) (Met), in position 24.4°N 035.6°E, (northern Red Sea). It remained 4 hrs before flying off south.

MGF recorded the following species during local operations between ports in the Red Sea during the period 19 Jan to 28 May:

Indian House Crow *Corvus splendens* - seen at each visit to Little Aden (6) and Hodeida (Yemen) 4-8), and Yanbu (Saudi Arabia) (4-7)

Osprey *Pandion haliaetus* seen Assab anchorage (Ethiopia) 2 May, and 17-19 May.

(dark morph?) Little Egret *Egretta garzetta dimorpha* (formerly Western Reef Heron) at Little Aden 1 May.

Cattle Egret *Bubulcus ibis* All white, bill yellow. One seen on bow of native

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rowboat (with noisy outboard) as it proceeded out of Port Sudan harbour. on 9 Apr.

Bittern sp. (or possibly Night Heron *Nycticorax nycticorax* (F)?) Landed on a dolphin in centre of Hodeidah harbour 9 Feb.

Sacred Ibis *Threskiornis aethiopicus*. (20) in Assab harbour 9 Mar.

Greater Flamingo *Phoenicopterus ruber* (50) at Hodeida on each visit (9 Feb-21 Apr).

Squacco Heron *Ardeola ralloides* Circled vessel several times, attempting to land, 40nm SSE Yanbu on 4 Mar.

White Wagtail *Motacilla alba* (M) in summer plumage 40nm SSE Yanbu on 4 Mar.

Collared Dove *Streptopelia decaocto* (1) 120nm NW Hodeida on 17 Mar.

Hoopoe *Upupa epops* (2) occasionally throughout period, at anchor off Little Aden.

Black Kite *Milvus migrans* (3) at Yanbu harbour 9 Mar.

House Sparrow *Passer domesticus* (10) at Port Sudan 9 Apr.

SECTION G - INDIAN OCEAN AND ARABIAN SEA

1995

On 3 Apr, NGC recorded a Nankeen (or Australian) Kestrel *Falco cenchroides* (F), aboard two hours at 25.3°S 111.3°E, 90nm WNW Dirk Hartog I., W. Australia. This species is widespread throughout Australia, also in PNG. On 14 Apr, a Tree Martin *Hirundo nigricans* was aboard briefly at 12O°S 106.5°E, 97nm SSE Christmas Island.

On 13 Oct, a probable Barn Swallow *Hirundo rustica* was found bedraggled aboard MV *York*. (Captain L. Hesketh) (Met), at 33.7°S 39.9°E, (540nm SW of SW Madagascar, 480nm SE Durban). (COMMENT. Description and photo best fits this species.)

On 10 Nov, a group of five large white "wading birds" landed aboard MV *Jervis Bay*. (Captain J.L. Peterson MN) (Met). They were first sighted, when 150nm "east of the Maldives" at 05°N 75°E approx, 240nm SW Sri Lanka). They followed the ship for two days (Course 100°T @ 22 kts), landing on ship overnight 10/11th. Identified from sketch and photos as juvenile White Spoonbill *Platalea leucorodia*. This species is widely distributed throughout Africa, Eurasia India, and China, but there are no previous RNBWS records at sea.

SECTION H - PERSIAN GULF AND GULF OF OMAN (no records received)

SECTION I - PACIFIC, CHINA SEA, YELLOW SEA, CORAL SEA AND PHILIPPINE SEA

1994

On 21 Oct, an Osprey *Pandion haliaetus* was photographed aboard MV *Pacific Crane* (Captain G. Dodsworth (Met). at 14.7°N 107.5°W (400nm SW Mexico).

1995

On 17 May, a male Chinese Goshawk *Accipiter soloensis* was photographed aboard MV *Providence Bay* (Met), which came aboard at 0900 in "outer approaches to Hong Kong waters". It remained on the bridge for over an hour, and departed as the vessel closed the land.

On 21 May an "owl" (no description given) came aboard MV *Pacific Pintail* (Met) at 40.4°N 172.6°W, 860nm north of Laysan Island (Sandwich Is.) and 710nm south of Aleutians. (COMMENT. No description was given, but Short-eared Owl *Asio flammeus*, seems the most probable species here.)

On 31 Oct, a "kingfisher" came aboard MV *Moreton Bay* (Captain G.J.H. Peaston MN) (Met). off Rondo Is, 06.2°N 95.0°E , 50nm NW Achin Hd. WNW Sumatra. It was obviously oiled, and was photographed prior to being "washed" (rubber bands were placed round the bill, as a sensible seamanlike precaution!). It took passage easterly towards Sri Lanka, where it was planned to release it on passing close to land, but it escaped just prior to arrival. Identified from photo as a Ruddy Kingfisher *Halcyon coromanda*, heavily discoloured by oil, but silvery-blue rump patch is just visible. (COMMENT. Fairly widely distributed India to Japan, E. China, Philippines, Malaya, and throughout SE Asia - it normally frequents forested streams and mangroves. Partial migrant - not recorded at sea by RNBWS before).

SECTION J - SOUTH ATLANTIC

1995

At 1100 on 24 Oct, GHW recorded two Fork-tailed Flycatcher *Tyrannus savana* aboard at 38.8°S 55.1°W, 120nm east of Mar del Plata, Argentina. He suspected these had arrived overnight, when the ship was closer to the Argentinian coast (ship's co. 180° @ 11kts, on passage Montevideo to Falklands). They were not observed leaving the ship but disappeared overnight 25/26th. Wind was NE/2-3. (COMMENT. This species is a vagrant, recorded three times in Falklands - Woods, R.W. 1988. *Guide to Birds of the Falkland Islands*).

As ship's naturalist on four cruises with "Marine Expeditions" to the Antarctic Peninsular (17 Nov to 29 Dec'95) aboard MV *Professor Multanovskiy*, Kevin Morgan recorded: "No landbirds were observed at sea, and only three species south of the convergence":

Yellow-billed Pintail *Anas georgica*. Birds of the South Georgia race were seen on 4 Dec (Grytviken) and 5 Dec (Albatross Island). Also a very interesting record of a flock of six on the marsh near the Polish Arctowski base in Admiralty Bay on King George Island, South Shetland, on 18 Dec at 62.1°S 58.5°W.

Speckled Teal *Anas flavirostris*. Seen on South Georgia at Grytviken on 4 Dec South Georgia Pipit *Anthus antarctica*. Seen in good numbers on Albatross Island, Bay of Islands, South Georgia on 5 Dec.

MBC

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RNBWS PHOTOGRAPHS - past and present. CAPTIONS 1 to 16

1. Black-browed Albatross *Diomedea melanophris* - South Atlantic, 1984.
Photo: Chief Petty Officer C.A.R. Bailey RN (HMS Achilles).
2. Red-footed Booby *Sula sula* - North Pacific, 1988.
Photo: (the late) Captain S.D. Mayl, MN (RRS Charles Darwin).
3. White-eyed Gull *Larus leucophthalmus*- off Jedah (Red Sea), May 1989.
Photo: Captain R.L. Westwater MN.
(Winner of *Sea Swallow* Photographic Competition 1989).
4. Sub-adult Stellar's Albatrosses *Diomedea albatrus* - Expedition to Torishima Island, with assistance from HM Ships *Brighton* and *Antrim*, April/May 1973 (see page 27)
Photo: Dr. Lancelot Tickell.
5. White-fronted Tern *Sterna striata* - off Napier, New Zealand, April 1987.
Photo: Captain R.L. Westwater MN.
6. Courtship display of Laysan Albatrosses *Diomedea immutabilis* - North Pacific, January 1987.
Photo: Radio Officer G. Shaw MN (MV Wellington Star).
(reproduced by kind permission of the Editor *The Marine Observer*).
7. Black-browed Albatross *Diomedea melanophris* - Saunders Island, West Falklands, October 1985.
Photo: Chief Petty Officer G. Benner RN (HMS Amazon).
8. Purple Gallinule *Porphyrrula martinica* - Gulf of Mexico, 210nm SE Louisiana, July 1980.
Photo: Captain R.L. Westwater MN.
9. Collared (or Mangrove) Kingfisher *Halcyon chloris*, central Pacific (01°N 165°E), April 1988.
Photo: (The late) Captain S.D. Mayl, MN (RRS Charles Darwin).
10. Snowy Egret *Egretta thula* - aboard HM S/M *Opportune*, in mid-Atlantic (20°S 22°W - 850nm SW Ascension, 420nm east of Trinidad Is., 1000+nm east of Brazil). It showed no interest in the food offered it!
Photo: Leading Seaman D.C. Martin RN.(Winner of *Sea Swallow* Photographic Prize 1986).
11. Brown-headed Gull *Larus brunnicephalus* - Bombay Harbour, March 1990.
Photo: Michael Casement.
12. Great Skua or Bonxie *Catharacta skua* - North Atlantic, 1988.
Photo: (The late) Captain S.D. Mayl, MN.
13. Yellow-legged Gull *Larus cachinnans* - Constanta, Romania, May 1991.
Photo: Gabriel Banica.
14. King Penguins *Aptenoides patagonicus* - Husvik Harbour, South Georgia, March 1993.
Photo: Lieutenant Commander S.E. Gaskin R.N. (HMS Endurance).
15. Gentoo Penguins *Pygoscelis papua* - South Georgia , 1987.
Photo: Surg. Lieutenant M.M. Parrish RN (HMS Endurance).
16. Blue-footed Booby *Sula nebouxii* - E. Pacific, Gulf of Guayaquil, July 1989.
Photo: Chief Officer P.W.F. Morana MN.



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26



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PHOTOGRAPH CAPTIONS 17 to 26

17. Night Heron *Nycticorax nycticorax* stalking prey - Stanley, Falklands, February 1987.
Photo: Second Officer Christine Poulter WRNS.
- winner of *Sea Swallow* Photographic Competition 1988.
18. Cattle Egret *Bubulcus ibis* -Caribbean, 3 May 1993.
Photo: LA (Metoc) Chris Patrick RN. (*HMS Endurance*).
19. Green Heron *Butorides striatus* - Gulf of Mexico, March 1983.
Photo: Captain R.L. Westwater MN.
20. Scops Owl *Otus otus* (juvenile) - 100nm NW Cape Verde Is. (17°N 23.3°W).
Photo: Mr Piet Meeth MN (MV *Nedlloyd Oranje*).
21. Peregrine Falcon *Falco peregrinus* - North Atlantic.
Photo: Captain R.L. Westwater MN.
22. Blackpoll Warbler *Dendroica striata* - West Atlantic October 1987.
Photo: Captain R.L. Westwater MN (MV *Irma M*).
23. Osprey *Pandion haliaetus* - in mid-Atlantic, 420nm SW Azores, 14 Oct'87, during SW gale - this gale subsequently became the "hurricane" which caused widespread devastation in the UK.
Photo: Captain R.L. Westwater MN (MV *Irma M*).
24. Grey Wagtail *Motacilla cinerea* (F), in Master's cabin - off SE Spain (Mediterranean) 28 Oct'95.
Photo: Captain P.W. Jackson MN, (MV *Seki Cedar*).
25. Rock Thrush *Monticola saxatilis* - Persian Gulf, May 1991.
Photo: LA (Metoc) Chris Patrick RN (*HMS Hecla*).
26. Black-and-White Warbler *Mniotilla varia* - Gulf of Mexico.
Photo: Captain R.L. Westwater MN.

We gratefully acknowledge the generous grants from the Sailor's Fund and the Fleet Amenities Fund, which have contributed towards the production costs for the colour photographs shown in this Golden Jubilee Issue.

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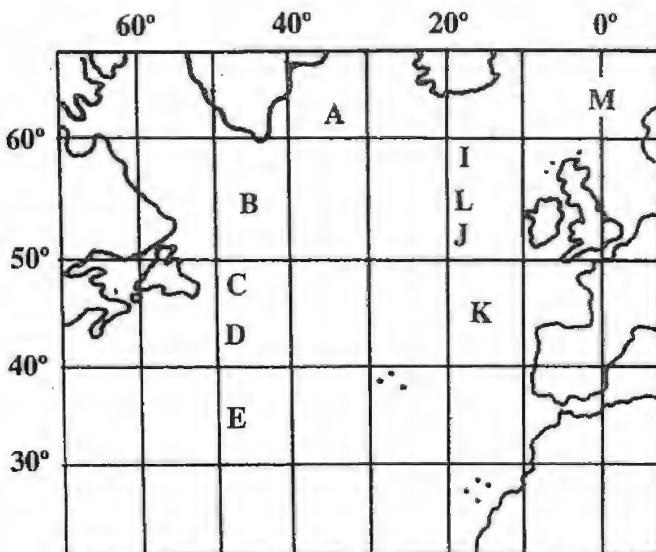
Ocean Weathership Reports 1964 to 1996 Summarised by Michael Casement

The British Ocean Weathership Service (OWS) was brought into the RNBWS reporting system in 1964, and the first reports began to appear in *Sea Swallow* 18. At that time there were nine OWS stations in the North Atlantic, (manned by nations as shown), between 35°N and 66°N, spread more or less evenly across the Atlantic. The most northerly was, Mike (Norway & Netherlands), at 66°N 02°E, roughly 150nm north of Shetlands. Three formed a line roughly south from Iceland:

India (UK & Netherlands), at 59°N 19°W, 330nm south of Iceland
Juliett (UK, France & Netherlands), at 52.5°N 20°W, 450nm west of Ireland.

Kilo (UK, France, & Netherlands), at 45°N 16°W, 400nm WNW Cape Finisterre.

And further west was another line of four stations in mid-Atlantic, with: Alfa (UK, France, Netherlands & Norway) in the Greenland Sea at 62°N 33°W, and a further three (manned by the USA) - Bravo, Charlie, Delta - and finally Echo (USA) at 35°N 48°W.



This network was well-positioned to collect weather data affecting western Europe, and also records of seabird and landbird movements in the eastern North Atlantic. In the 1950s, British ornithologists collected some sporadic data from the observations of British Weather Ships. Through the keen co-operation of Mr. Norman Lynagh and Mr. Euan Macdonald, both members of RNBWS, and the Met. staffs of OWS *Weather Adviser* and *Weather Monitor*, the possibility of building up a more permanent organisation was explored. Thereafter, day to day census records on station, and passage reports, were made on RNBWS forms, for both seabirds and landbirds.

The first batch of these was analysed by Captain Tuck in SS18: 48-50. "First impressions" (of Long-tailed Skua, for example) were: "Increasing in numbers 450 miles west of Iceland in mid-May, and a few in the Greenland Sea area further north in early June". Landbird records included (p49): "It may come as a surprise to the manufacturers of 'Swoop' that our observers in British Weather Ships far out in the Greenland Sea have recorded that Lapland Buntings and Snow Buntings all fed happily on 'Swoop'." and "..... Ocean Station India ... was under observation for three periods in 1965. Between 1-22 Jan, the only landbirds observed were two Great Grey or Lapland Owls, one on each of two consecutive days...." [COMMENT. The precise identity of this remarkable record must remain in doubt - no details were published. Confusion with the much more probable Snowy Owl *Nyctea scandiaca* seems unlikely, but if indeed *Strix nebulosa*, these were presumably of North American origin. It must be remembered that observers in those days lacked the range of high quality field guides now available, and our knowledge of bird distribution is now vastly improved].

From these early beginnings, the wealth and quality of reports improved dramatically, and SS19:11-14 (1967) includes data for 1966 from four stations, in tabular form, for both seabirds and landbirds (Table A). As Captain Tuck writes (p.11) "Seabirds, landbirds, dolphins, blackfish and whales provide the pattern of visible life in the grey and often turbulent waters in which the Ocean Weather Ships - the old Castle class frigates - stick it out while the meteorologists record the weather. Some stalwarts record birds for us!"

In SS20: 7-17 (1970), Captain Tuck presents the data from Alfa and India in nine pages (+ two large pull-out tables); an article by Robert B. Dyer, gives a graphic account (p35) of the excitement of an unusual "hawk" which landed aboard OWS *Weather Reporter* in Station India (the date is not given). The bird was fed, and subsequently released. On return to Glasgow, it was identified as a two-year old male Red-footed Falcon *Falco vespertinus*.

The pattern of reporting was thus established by Captain Tuck, and similar tables were produced annually, summarising the growing mass of data provided by dedicated observers, notably C.I. Griffiths, R.B. Dyer, R.C.L. Aran and R.J.Burness, who steadily improved their identification procedures. This volume of reports was rapidly becoming too much for our dedicated chairman, and in 1973 J.H. (John) Agnew assisted with the task of analysis of OWS seabird data, and his first report appears in SS22. Regular reports were received from the British OWS ships on stations Alpha, India and Juliet, and included data from the Dutch OWS *Cumulus*.

Captain Tuck continued the analysis of landbird records, until I took this over in 1974. These mostly comprised sightings of the regular long-distance migrants to and from Iceland and the arctic tundra, such as Wheatears *Oenanthe oenanthe*, Snow Buntings *Plectrophenax nivalis* and Merlins *Falco columbarius*, but occasional oddities were reported: SS22 (1973) recorded a flock of 15 Avocets *Recurvirostra avocetta*, which flew close past at India, heading easterly, on 27 Apr '71; and a Two-barred Crossbill *Loxia leucoptera* which died aboard Juliet in 18 Oct. The continuing westward spread of the Collared Dove *Streptopelia decaocto* was demonstrated by the observation of one at India, on 14 May '71.

In 1976, Captain Tuck wrote (SS25:15): "It is now eight years since the daily recording of all seabirds identified "on station" came into being

effectively. These records have been achieved entirely through the hard work of the observers whose names have appeared regularly in *Sea Swallow*. From this flow of information much has been learned already of the general seasonal distribution of "resident" species at sea, although numbers concentrated around the ships on station. Also much useful knowledge has been gained with regard to migration.

Unfortunately today Stations Alfa and Kilo are no longer occupied by British Ocean Weather Ships. However, observations are still being sent in with gratifying regularity from India and Juliet."

Data from the newly established Station Lima (57°N 20°W, 210nm WSW Rockall, 450nm south of Iceland) first appeared in SS25 (1976), and thereafter Stations India and Juliet were no longer manned by British crews. Lima was now covered by the two British ships *Weather Monitor* and *Weather Reporter* for the full 12 months. Seabird counts were carried out at a regular time, over a limited period each day, and the observations presented annually in *Sea Swallow* in the same format as they are today. These were summarised in SS26 (1977), by Captain Tuck, but thereafter this was done annually by John Agnew until, due to the pressures of other work, he relinquished this task in 1983 (SS32). Captain P.W.G. (Peter) Chilman took over this vital work in 1985, summarising data for 1982/83 in SS34 (1985), and caught up with the back-log of 1984/85 data from *Admiral Beaufort* and *Admiral Fitzroy* in SS35. Thanks are due also to Mr R.C.L. Aran for the coordination of these records. In 1986, OWS *Cumulus* was taken under the British flag, which thus became the sole source of regular reports. An unusual landbird that year was a Gyr Falcon *Falco rusticolus* which crash-landed aboard (SS36:56) on 16 Oct.

Peter Chilman has continued with these annual seabird summaries, using the same format, for the past 11 years. The landbird data has similarly been summarised by myself, though sadly lacking in recent years has been crucial identification details of the more unusual sightings, and also useful wind and weather data.

Conclusion. For the past 28 years, ships of the British OWS have provided regular records, of both seabird and landbirds, from far out in the Atlantic. Our knowledge of seabird distribution and movements in the North Atlantic has thereby been vastly improved, but there may be scope for another comprehensive analysis of this data to discover trends over the past 30 years. Being both regular and from a fixed geographical station, this accumulated data is unique, and much simpler to analyse than occasional observations from ships on passage through the area. New computer technology has revolutionised the handling of weather data, and it may now be appropriate to use modern techniques also for the analysis of this published *Sea Swallow* data over the full period, to update our understanding of both seabird and landbird migratory patterns across this sea area.

Our original hope to achieve this for publication in this issue, has proved impracticable. If any reader has the time and expertise to assist with this project for next year, please let me know.

Commander M.B. Casement OBE, RN, Dene Cottage, West Harting, Petersfield, Hants. GU31 5PA.

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SEABIRD REPORTS FROM OCEAN WEATHERSHIP STATION LIMA (57°N 20°W) 1995. Summarised by Captain P.W.G. Chilman, M.N.

All observations are from OWS *Cumulus*. The format of the summary remains as in previous years. The total number of observation days for 1995 was 268 - seven days less than 1994.

Totals of daily counts (including immatures shown in brackets, where recorded) were:-

Fulmars 8,187 (1 blue phase); Great Shearwater 2,019; Sooty Shearwater 74; Manx Shearwater 7; Gannet 127 (57); Herring Gull 1 (1); Lesser Black-backed Gull 246 (128); Great Black-backed Gull 82 (10); Glaucous Gull 18 (12); Kittiwakes 11,310.

After reporting increases in the numbers of Fulmars and Kittiwakes for the last seven years, to 1993, sometimes huge increases, the numbers fell dramatically in 1994. Fulmar numbers are again down this year, from 10,207 to 8,187, however Kittiwakes have picked up to 11,310 from 7,543 last year.

This year the numbers of Great Shearwaters are less than in 1994 - 2,019 against 2,662 - and again the bulk of the sightings were in September and October. Last year the Gannet numbers were very high, 772, against 252 in 1993 and 127 this year. Looking back through the last five years, the adult numbers have varied quite considerably, but the immature numbers have remained in the range 56 - 61.

1995 Summary of seabird sightings at Station LIMA (57°N 20°W)

Month 1995	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Observation days (285)	27	19	23	23	21	24	20	25	22	19	22	23
Fulmar	x	+	-	x	o	o	o	o	o	o	o	o
Great Shearwater			-		-	+	o	x	-	-	-	-
Sooty Shearwater			-		-	+	-	-	-			
Manx Shearwater			-	-	-							
British Storm-petrel			-	-	-	-	-	-	-	-	-	-
Gannet	-	-	+	+	+	-	-	-	-	-	-	-
Great Skua	-	-	-	-	-	-	+	+	-	-	-	-
Pomarine Skua			-			-	-	-	-	-	-	-
Arctic Skua												
Long-tailed Skua												
Herring Gull			-									
Lesser Black-back	-		-	+	+	-	+	+	-	-	-	-
Great Black-back	-	+	+	-	-	-	-	-				
Glaucous Gull	-	-	-				-	-				
Kittiwake	x	x	x	x	o	+	+	o	o	o	o	o
Black-headed Gull					-							
Tern Sp.						-	-	-				
Common Tern							-	-				
Little Auk						-						

Key - Occasional sightings o Average 10 - 49 per day
 + Average 1 - 9 per day x Average 50 or more per day

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Looking back in the records as far as 1986, this year is the first time that there is no sighting of Guillemots. As I have said before, there seems to be very little pattern in the sightings. Last year the number of Glaucous Gulls sighted was 11, this year 18. Last year all the birds were sighted in January, but this year they were spread over seven months.

We again have to thank the Met Staff of OWS *Cumulus* for continuing to provide this useful and interesting information.

Captain P.W.G. Chilman MN., 15 Garbett Way, Bishopthorpe, York. YO2 1SF.

LANDBIRD REPORTS FROM OCEAN WEATHERSHIP STATION LIMA, 1995

Summarised by Commander M.B. Casement, O.B.E., Royal Navy.

As last year, the majority of landbird observations have been extracted by Captain Peter Chilman from seabird record sheets received, but include three pages of notes from Trevor Ellsum and R.J. Ellis, of the Met. Staff of OWS *Cumulus*, covering periods (1-30 March, 19 May-20 June, and 16 Nov-7 Dec) operating at or near Station LIMA (57°N 20°W - 210nm WSW Rockall, 450nm S. Iceland).

The records are disappointingly few, and once again lack important identification details, and the normal details of weather factors affecting landbird migration. The following species were noted, on the dates shown:

- Golden Plover *Pluvialis apricaria* ("Southern form" - no details). 26 Apr (1)
Redshank *Tringa totanus*. 24 Apr (1)
Sanderling *Calidris alba*. One on 3 May.
Turtle Dove *Streptopelia turtur*. One on 8 May.
House Martin *Delichon urbica*. 3 Apr (1), one aboard 5-6 May, then died. Singles on 27, 28 May, and 1 June. 13 June (1 + 1 prob - white rump not seen)
Swallow *Hirundo rustica*. Singles on 28, 29 Mar and 13 June
Wheatear *Oenanthe oenanthe*. 19 May (1), 20 May (2), 8 Aug (1), 18 Nov (1)
American Redstart *Setophaga ruticilla*. One aboard 6 and 7 Dec. "Positively identified, but unable to photograph- it died overboard".
"Willow Warbler" *Phylloscopus trochilus*. Singles on 8 June and 18 Aug.
"Chiffchaff" *Phylloscopus collybita* (no details). One on 27 Apr.
Redwing *Turdus iliacus*. One on 5 Dec.
Blackbird *Turdus merula*. One (F) on 31 Aug.
Song Thrush *Turdus philomelos*. One on 16 and 17 Nov.
Pied Wagtail *Motacilla alba*. One on 20 Nov.

COMMENT. There is little pattern to be seen from these few records. Of most interest is the record of the American Redstart, especially on this late date. Unusually, there are no records of Merlins, or other birds of prey during the peak migration season. The number of species seen (14) compares with recent years: 1990 (13), 1991 (19), 1992 (17), 1993 (23), 1994 (15), but 38 species were seen in the peak year of 1988.

Note. The similar title heading in *Sea Swallow* 44: 57 contains a mis-print - this should read 1994, not 1993.

It is with great sadness that we learn that, with effect from 2 June 1996, there will no longer be a British Weather Ship; OWS *Cumulus* was handed back to the Dutch on 7 June. This marks the end of an important era of close partnership between RNBWS and the Ocean Weather Ships in the North Atlantic.

M.B.C.

Seabirds at sea in the Line Islands and NW French Polynesia,
Central Pacific

by

N. John Phillips, Martin C. Garnett, A. Kay Kepler, Mark D. Linsley,
Annabel J. Seddon, and Graham M. Wragg*

*Authors are listed alphabetically (except senior author)



Introduction

This paper reports at-sea seabird observations during a c.7600 km voyage through the Line Islands (Kiribati) and Society Islands (French Polynesia), in the central Pacific. Observations were made from the 10m motor-sailing Research Vessel 'Te Manu' (skipper Graham Wragg), during March-May 1990.

The distribution of seabirds in this region, particularly around the southern Line Islands, is little known. Observations are described and discussed with special reference to Kepler *et al.* (1992) and Garnett (1983).

This study formed part of the 1990 ICBP Line Islands Expedition (Kepler 1990). For a more detailed report see Phillips & Wragg (1993).

PERSONNEL AND ITINERARY

The expedition was initiated by MCG, AKK, and GMW. On the northbound leg (6 Mar. to 2 Apr.) AKK, MDL, NJP, AJS and GMW, with Alve Henricson (Mate), left Tahiti (Berkeley University Research Station, Cook's Bay, Moorea) after dark on 6 March and sailed north to Caroline Atoll (where we were ashore from 11-14th), then to Flint Island (ashore 16-18th) and Vostok Island (ashore 20-21st). From here we continued via Starbuck and Malden Islands (where landing was impossible) to Kiritimati (Christmas Island), arriving on 2 April. On the southbound leg MCG, AKK, MDL, AJS and GMW left Kiritimati on 24 April and sailed to Starbuck (30 April, no landing) then south to Motu One (Bellingshausen Island), in the north-west Society Group, where we landed for two hours on 10 May. Thence we tracked south to c.17.5°S, north-east to Caroline Atoll (ashore 18-25 May), and south to Tahiti, arriving on 31 May. The boat's position was ascertained by GPS satellite fixes and sextant. The cruise track (Fig. 1) was derived from these readings and from the *Te Manu*'s log.

METHODS

Seawatching and recording methods were based on those of the Pacific Ocean Biological Survey Program (POBSP) of the US National Museum, Smithsonian Institution (King 1970; Gould, 1974), with reference to other studies (Haney 1985; Tasker *et al.* 1984; Gould & Forsell 1989).

A virtually constant daylight watch was maintained while at sea. Watches usually began c.10 minutes before sunrise and ended c.10 minutes after sunset. They were occasionally interrupted by heavy rain squalls or for sailing duties, and were discontinued within c.5km of islands. Fifty days were spent at sea

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during which 7,600km were travelled, of this 3675km were spent seawatching for a total of 505 hours of observation.

At least one observer was on watch at any time, with regular changes every two hours. At times more than one observer was active, with a maximum (rarely) of four. Observations were usually carried out from a forward-facing position on top of the boat's cockpit, c.2.5m above the waterline. A single observer in this position could observe the sea over a c.200 degree arc. Adding further observer(s) added at most only a small percentage of seabird sightings. References to periods of time for which observations were carried out relate to the number of hours spent watching, irrespective of the number of observers on watch.

Every seabird sighting was logged with details of species, including time (local), number of birds, direction of flight, and whether in directed flight or feeding.

All sightings have been included in the species accounts and in the discussion of feeding flocks. It should be borne in mind that our observations were carried out from a low elevation and so are likely to have missed a proportion of small and low-flying species, especially beyond c.400m. Most birds seen were within c.1,000m.

The speed of 'Te Manu' during this cruise, whether under sail or engine varied, with a maximum of c.6 knots (c.11km/hr), and an average of 3-4 knots. Accordingly, numbers of birds seen per hour, rather than numbers per unit distance or unit area, are used when discussing bird densities. The majority of observations related to birds in flight past the boat. The numbers seen per hour are less subject to variability - due to the boat's speed - than numbers per km or km². The number of stationary birds (*i.e.* for the most part, feeding flocks) encountered per hour will vary with the boat's speed, but this is unlikely to have a major effect on the aspects discussed here.

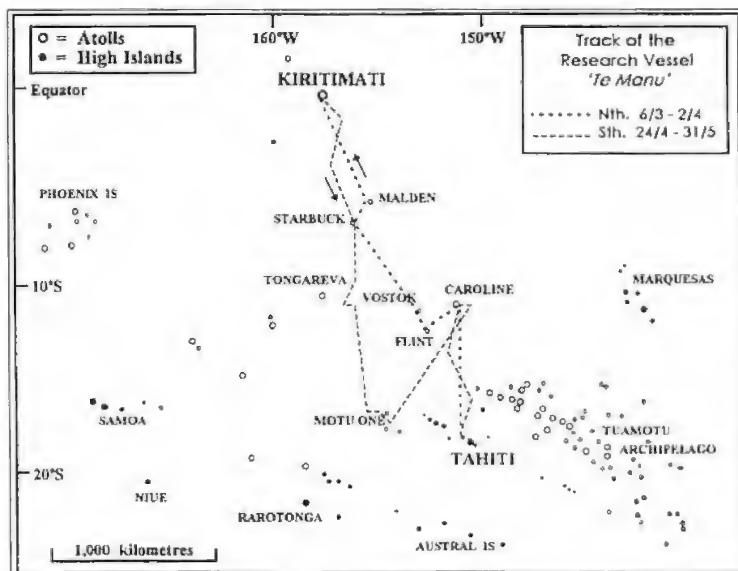


Figure 1. 1990 ICBP Line Islands Expedition: track of R/V 'Te Manu'.

OBSERVATIONS AND DISCUSSION

A total of 13,816 observations of individual seabirds of seven families and c.30 species were recorded during the whole voyage. Fig. 2 shows the relative abundance of birds by species / species group. The total numbers of each species are given in Table 1.

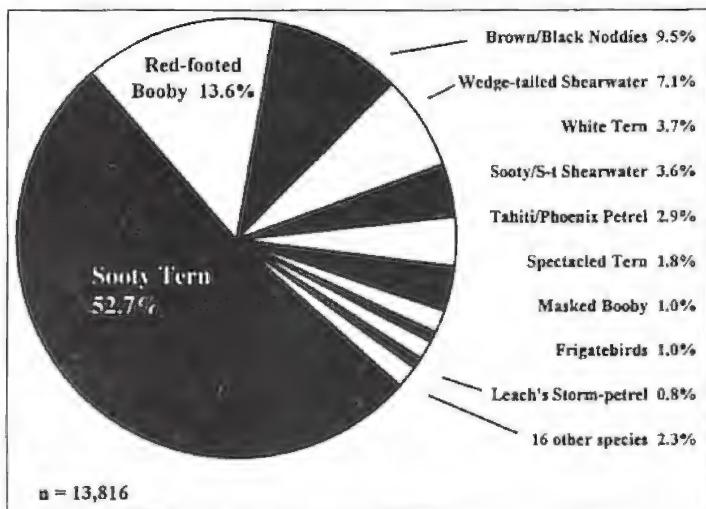


Figure 2. Composition by species: both legs included.

Species composition differed somewhat between the northward and southward legs. Sooty Terns *Sterna fuscata*, the commonest species, accounted for c.50% of all observations on both legs. Red-footed Boobies *Sula sula*, Wedge-tailed Shearwaters *Puffinus pacificus*, and Brown and Black Noddies *Anous stolidus* and *A. minutus* together formed 31% of the total on the outward leg, and Red-footed Boobies, Wedge-tailed Shearwaters and Sooty/Short-tailed Shearwaters *Puffinus griseus* / *P. tenuirostris* constituted 31% on the return.

In general, higher densities were recorded on the northward leg than on the southward leg. This is likely to be due to the greater distance from seabird breeding islands of much of the southbound leg. The only species which were noticeably more numerous on the southbound leg were the less common petrels, migrating Short-tailed/Sooty Shearwaters, and the highly pelagic tropicbirds *Phaethon* spp.

Kepler *et al.* (1992) saw 457 birds during 30 hours of observation in the northern Line Islands in September 1988. The proportions of *Sternidae*, *Fregatidae* and *Phaethontidae* in their total were similar to ours (*Sternidae* 61.2% v. our 67.7%; *Fregatidae* 1%, both studies, *Phaethontidae* c.0.9% both studies). *Procellariidae* were relatively more abundant in 1988 (25.6% v. 15.5%), as were *Hydrobatidae* (3.7% v. 0.9%). *Sulidae* were relatively scarcer (6.6% v. 14.6%).

At the species level, the 1988 cruise (Kepler *et al.* 1992) recorded Sooty Terns and Wedge-tailed Shearwaters in proportions similar to this study. Masked Boobies *Sula dactylatra* were relatively commoner in 1988 whereas Red-footed Boobies, noddies and Fairy Terns were relatively scarcer. These differences are also likely to reflect different average distances from islands, with a higher proportion of pelagic forms, both at the species and family level,

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Species	Northbound	Southbound	Total
	6/3 - 2/4	24/4 - 31/5	6/3 - 31/5
Tahiti/Phoenix Petrel	224	183	407
Mottled Petrel	29	13	42
Herald Petrel	2	1	3
White-necked/Jan Fernández Petrel	0	13	13
Gould's or Collared Petrel	9	9	18
Black-winged Petrel	0	7	7
Stejneger's Petrel	1	5	6
Unidentified <i>Pterodroma</i>	14	31	45
Bulwer's Petrel	47	14	61
Wedge-tailed Shearwater	617	364	981
Sooty/Short-tailed Shearwater	126	367	493
Christmas Shearwater	3	1	4
Audubon's Shearwater	12	13	25
Unidentified petrel/shearwater	9	31	40
Leach's Storm-petrel	85	20	105
White-throated Storm-petrel	5	8	13
Red-tailed Tropicbird	3	4	7
Yellow-billed Tropicbird	10	29	39
Masked Booby	101	30	131
Red-footed Booby	894	984	1878
Brown Booby	3	3	6
Frigatebird species	89	48	137
Unidentified small skua	1	0	1
Swift Tern	245	4	249
Sooty Tern	4284	2994	7278
Crested Tern	0	2	2
Brown Noddy	356	226	582
Black Noddy	364	21	385
Brown/Black Noddy	344	1	345
Blue-grey Noddy	2	6	8
White Tern	369	136	505
Totals (c.30 species)	8248	5568	13816

Table 1. Numbers of seabird species seen on the north and southbound legs of the "Te Manu" cruise, March - May, 1996.

recorded during the more oceanic cruise of September 1988.

Seasonal differences due to breeding phenology may also be involved. For example the proportion of Sooty/Short-tailed Shearwaters was similar on the two cruises {2.5% (Sooty) 1988, 3.6% this study}, reflecting their migrations through the area during the northern spring and autumn.

SPECIES ACCOUNTS

Notes on distribution and breeding phenology are taken from Harrison (1983) unless stated otherwise. Nomenclature used accords with RNBWS Checklist of Seabirds (Bourne & Casement 1993).

Tahiti/Phoenix Petrels *Pterodroma rostrata* / *P. alba*.

These two species are difficult to distinguish at sea, especially with little experience (Harrison 1983); only on the return leg were some identified to species. They were seen almost daily. Most were seen in the waters between Tahiti and Caroline (presumably Tahiti Petrels) and near Kiritimati (presumably Phoenix Petrels), with comparatively small numbers elsewhere. Densities were noticeably greater on the northbound leg, largely due to higher numbers between Tahiti and Caroline. Nearly all observations were of single birds. Only four were seen feeding.

Mottled Petrel *Pterodroma inexpectata*.

On the northbound leg Mottled Petrels were seen every day from 10-31 March (between c.10.5°S 149.75°W and c.1.5°S 158°W), except on 29th, when none was seen. There were noticeably fewer on the return leg (12) all south of 7°S. Only one bird was flying south; others were headed north-west (a few north, one west). Our observations suggest a concentration around 6°S-11°S, but the numbers seen (total 42) are insignificant compared to the very large numbers which have been recorded on passage further to the north-west in the Pacific (Mobberley 1974). Our records are somewhat to the east of the easternmost limit of the migratory range mapped in Harrison (1983), and perhaps more birds disperse towards the central Pacific than has been realised.

Herald Petrel *Pterodroma arminjoniana*.

Our three sightings, all in the southern part of the cruise area, were all well within the species' known pelagic range.

White-necked and Jan Fernández Petrels *Pterodroma cervicalis* / *P. externa*.

All thirteen individuals identified were on the southbound part of the cruise. All but one between 6-15 May, in waters south of 12.5°S and west of 151°W, i.e. between the southern Line Islands and the north-west Society Islands. Of eleven birds with a definite flight direction, eight were flying north. Of four birds whose subspecific identity was noted, three were of the western race *cervicalis* and one of the eastern race *externa*. All were within or just outside the southern edge of the central Pacific range mapped in Harrison (1983). It would seem likely that these birds were either non-breeders or (perhaps more likely in view of the predominantly northward flight direction) early dispersing birds.

Gould's/Collared Petrel *Pterodroma leucoptera* / *P. brevipes*.

All nine birds on the northern leg (7-15 March) and seven of the nine on the return leg (17-31 May) were south of 10°S and east of 151°W. The other two were on 4 May at c.8.5°S. There was no preferred flight direction: seven had a northward component and nine a southward component; four east and three west. Our records tend to support the suggestion that these petrels disperse into the central tropical Pacific. The absence of a preferred flight direction could imply that the birds were settled in the area, rather than on passage. They perhaps remain mostly south of about 10°S and may be more common near the Line Islands than further west.

Black-winged Petrel *Pterodroma nigripennis*.

Our seven records were all on the southbound leg, between 3-31 May. All

were south of 8.5°S, with four, between 13° and 16° S, during 7-10 May. Five out of the seven were heading in a northward direction. The records are consistent with birds from breeding colonies in the Austral Islands dispersing into the tropical Pacific at the end of the breeding season.

Stejneger's Petrel *Pterodroma longirostris*.

The only record on the outward leg was of a probable petrel of this species flying south on 7 March c.160km north of Tahiti. Four of the five birds on the southbound leg were at 13°-16° S, between the southern Lines and the north-west Society Islands, on the 13-15 May. The last bird was on 27 May c.200km SSE of Caroline. Four birds had a northward flight component. Our records are considerably to the south-west of the migration range mapped in Harrison (1983); however there are records from the Line Islands (Kepler *et al.*, 1992) and the Phoenix Islands (King, 1967). They are perhaps more widely distributed on migration than has been thought.

Bulwer's Petrel *Bulweria bulwerii*.

On the outward leg they were seen almost daily from 9 March (at 12.5°S 149.5°W) 170km SSE of Caroline until the 1st April. An absence of records from 25-27 March may have been due to rougher seas at this time. Of a total of 41 birds on the northward leg whose flight direction was specified, 27 (66%) were heading in a southerly direction and 12 (29%) northward; two were headed due west. All 14 birds on the southbound leg were seen in the north, from 24 April to 2 May, between Christmas Island and c.170km SSW of Starbuck. On this leg numbers heading generally south and generally north were very similar (5 v. 6).

At least some were probably heading for colonies in the Marquesas and Phoenix islands. The lower density and absence of preferred flight direction on the return leg may be due to most breeding birds having returned to the colonies by May. Our most southerly sightings were slightly south of the dispersal range mapped in Harrison (1983).

Wedge-tailed Shearwater *Puffinus pacificus*.

This species was seen daily on the northbound leg. On the southbound leg numbers remained very small after leaving the waters around Kiritimati. None were seen between Caroline and Tahiti on this leg, in marked contrast to the outward passage. Five pale phase birds were seen, all between 6°S and 3°S and between 24-30 March. The pale phase predominates further north, in the Hawaiian chain (Kepler *et al.*, 1992). We saw just one ashore at Kiritimati in April 1990.

Unusually stormy weather in the Society Islands and Southern Lines in February-March (personal observations) may have affected the numbers of birds in those waters. The stage of the breeding cycle may also have been involved; breeding normally occurs during the local summer.

There was an unexpected concentration of Wedge-tailed Shearwaters near Malden (c.8 per hour, 29 March). Bloxham (1925) recorded unidentified Procellariids there, and although Garnett (1983) stated that they had become extinct, the island has been very infrequently visited in recent decades. It seems possible that the island might now support a small colony of these shearwaters (see also Audubon's Shearwater).

A concentration around Starbuck on the northward leg consisted mostly of feeding birds, and there were few here on the southward leg; breeding here seems less likely. However the species has been previously recorded as a visitor

to Starbuck (Garnett, 1983).

Sooty/Short-tailed Shearwater *Puffinus griseus* / *P. tenuirostris*.

These two shearwaters are difficult to distinguish at sea (Harrison, 1983). Few were identified to specific level but both species were thought to be present, with Short-tailed probably commoner. Overall the fifth most numerous seabird, this group was one of the few which were commoner on the return leg of the cruise. On the northbound leg from the 9 March (except the 25th) they were seen every day. They became increasingly common further north. On the southbound leg they were recorded almost daily from 25 April-16 May. Virtually all were heading rapidly north-west or north and none were feeding. Although fairly numerous the numbers are rather insignificant compared to the very large migrating flocks of both species which have been encountered further west (Harrison, 1983; King, 1967; Kepler *et al.*, 1992).

Christmas Shearwater *Puffinus nativitatis*.

The four records include two on 1 and 24 April close to Kiritimati, where c.5000 pairs nest (Garnett, 1983). The other records were of two probable sightings on 26 March, less than 50km NE of Starbuck. The records suggest the possibility of breeding at Starbuck or Malden.

Audubon's Shearwater *Puffinus lherminieri*.

All of our 25 records were within the known range. Some records tend to support the suggestion that there may be an as-yet-undiscovered breeding colony or colonies in the southern Line Islands (Garnett, 1983; Kepler *et al.*, 1992).

White-throated Storm-petrel *Nesofregetta fuliginosa*.

Ten out of the thirteen sightings were within 400 km of Kiritimati, where there is possibly the largest population in the world with up to c.1000 pairs (Garnett, 1983). Three on 2 April and four on 24 April were within c.50km of Kiritimati. The remaining three were: 28 March, c.4°S 155°W, less than 50km from Malden; 2 May c.7°S 155.5°W, c.160km S of Starbuck; 11 May, c.11°S 154°W, near the north-west Society Islands. Breeding on Malden and/or Starbuck was considered possible by Garnett (1983), and the first two records might relate to birds from those islands. The bird of 11 May seems more likely to have originated from the Austral Islands population than from further north.

Leach's Storm-petrel *Oceanodroma leucorhoa*.

On the northbound leg there were four birds on 10 March (the first at 10.5°S 150°W), and one on 15. Thereafter they were seen every day from the 22 onwards except for 26 and 27. Numbers tended to increase further north, with a maximum daily total of 23 on 31 March at c.1°S 158°W. On the southbound leg small numbers were seen daily from 24-30 April, but none subsequently. Five on the 24th was the highest daily total. Of 113 birds which had a definite flight direction, 68 (60%) were moving approximately northwards and 36 (32%) southwards. The remainder were feeding or foraging.

Our observations evidently relate to northward spring passage, with birds apparently having moved north of c.5°S by 24 April. The southernmost of our records is on the extreme southern edge of the range mapped in Harrison (1983). All the birds seen well were of the pale-rumped form.

Red-tailed Tropicbird *Phaethon rubricauda*.

The seven individuals of this typically highly-dispersed pelagic species ranged in latitude between Kiritimati (2°N) and the north-west Society Islands (c.17.5°S), and in longitude from 149.5°W to 158°W, virtually the limits of the cruise track.

Yellow-billed Tropicbird *Phaethon lepturus*.

More Yellow-billed than Red-tailed tropicbirds were seen, especially on the southbound leg. Nine sightings were between Caroline and Tahiti, c.500km from the nearest breeding site in the Tuamotus.

One on 23 March at 8°S 153.5°W and three on 30 March and 28 April at c.3°S 157°W, were over 700km from known colonies. The remaining twenty-three sightings, scattered over the southern half of the cruise track probably involved birds from the Society Islands.

Masked Booby *Sula dactylatra*.

Sightings of Masked Boobies were very closely associated with proximity to land, with 75% within c.50km, 97% within c.200 km., and the furthest c.270km from land. Breeding on Starbuck seems likely. Garnett (1983) described its status on Starbuck as "unknown". None were seen at sea around Flint, where they may still breed (Garnett, 1983), but one pair was displaying ashore there on 17 March.

Red-footed Booby *Sula sula*.

This was the second most abundant seabird overall (Fig. 2). Most were close to islands, especially Caroline, Vostok and Motu One. Fewer were seen at Flint and Kiritimati and none around Starbuck. As was expected, they were more pelagic than Masked Boobies: 58% were within 50km and 86% within 200km of land. The furthest from land which we saw were at c.340 km, but only 1.5% of the total were this remote.

Brown Booby *Sula leucogaster*.

Five of the six individuals were observed within 100km of known breeding areas: singles very close to Malden and Kiritimati and three in the north-west Society Islands within c.70km of Motu One. The exception was an adult flying north on 7 March, c.130km north of Tahiti.

Frigatebirds *Fregata minor* / *F. ariel*.

33% of the total of 137 frigatebirds were identified to species level, of these 76% were Greater Frigatebirds (and the rest Lesser Frigatebirds, reflecting their relative abundance in the region. Lessers were not identified until 23 March at c.7.5°S; on the return run only two Lessers were certainly identified, in the north on 27-28 April, whereas Greaters were scattered more evenly throughout. Frigatebirds were seen on 15 out of 20 dates on the northbound leg but only on 18 days out of 30 on the southbound leg. This may be due to fewer islands being approached on the southbound leg and also to fewer feeding flocks being encountered; 32% of all Frigatebirds seen were in feeding flocks and 59% were recorded as feeding or foraging. Frigatebirds tended to be seen relatively close to breeding islands; highest densities were near Caroline, Starbuck, Malden, Kiritimati and the Society Islands. Of 47 birds with a definite flight direction, 31 had an eastward component in their flight and ten a westward component. Some birds may have been on return migration to Line Island colonies from further west in the Pacific.

Skua (Jaeger) sp. *Stercorarius* sp.

One pale phase bird flying north on 8 March at c.15°S 149.5°W was either Arctic Skua *S. parasiticus* or Pomarine Skua *S. pomarinus*. We saw up to five Pomarine from the ferry between Moorea and Tahiti on 24-25 February. Pomarine Skua is not listed for the Society Islands in Pratt *et al.* (1987) although these islands are within the southernmost limit of the wintering range shown in Harrison (1983). Arctic Skuas have apparently not been

recorded from the central Pacific (King, 1967; cf Harrison, 1983).
Spectacled Tern *Sterna lunata*.

These terns were closely associated with known or suspected breeding islands; none were seen until one on 26 March within a few km of Starbuck. The most remote from land were about 270km from Malden on 30-31 March. On the southbound leg the only records were of three within 50km of Kiritimati on 24 April and one probable flying east on 3 May at c.8.5°S 155.5°W, c.300km S of Malden.

Sooty Tern *Sterna fuscata*.

Over half of all seabirds sighted were Sooty Terns, and they were almost four times as common as the next most abundant species (Fig. 2). We observed them on 46 out of the 50 days at sea.

South and west of a line through 12.5°S 150°W and 10°S 155°W, densities were less than 1.0/hr on ten out of 12 days and did not exceed 2.3/hr. At the other extreme we recorded densities of up to 10.8/hr within 100km of Malden, 23.5/hr within 50km of Kiritimati, 35.5/hr within 50km of Caroline, and a very high 222/hr (556 birds in 2.5hrs) within c.20km of Starbuck. There are large Sooty Tern colonies on all these islands.

Swift Tern *Sterna bergii*.

We saw two single birds, on the 10 and 13 May, in the north-west Society Islands where the species is on the eastern edge of its Pacific breeding range. No birds from the colony of c.700 at Kiritimati (Garnett, 1983) were seen at sea.

Blue-grey Noddy *Procelsterna cerulea*.

Our eight birds at sea were all relatively close to known breeding islands. Singles on 28 and 29 March were within c.40km of Malden, and six on 24 April were within c.30km of Kiritimati. It has previously been recorded only as a migrant or visitor to Caroline (Garnett, 1983). We saw three ashore there on 12 March and one on 13th, and breeding was confirmed (on Motu Eitei) later in 1990 by Alexander Falconcier.

Brown and Black Noddies *Anous stolidus* / *A. minutus*.

Noddies together made up 9.5% of all birds seen on the cruise (Table 1, Fig. 2). On the northbound leg, 32% of the 1064 noddies seen were not specifically identified. By the return leg improved identification skills and the absence of large mixed feeding flocks meant that only one bird out of a total of 248 was unidentified.

Black Noddies predominated on the northbound leg as we were nearer the colonies on Kiritimati, Caroline, Flint and Vostok. For much of the southbound leg we were evidently west of the feeding range of the majority of birds from these colonies.

Brown Noddy: Of those birds specifically identified, densities varied considerably depending on the distance from land and the distribution of feeding flocks. Of the total of 582, 404 (69%) were within c.70km of islands. The most distant from land were on 6 May, about equidistant (400km) from Tongareva (Penrhyn), Flint and Motu One. On 34 of the 50 days at sea less than 1.0/hr were seen, with none at all on 18 days.

Black Noddy: Densities varied considerably, as with Brown Noddy. The proportion within 70km of land was 290/385 (75%), and the most distant from land was about equidistant (320km) from Vostok and Starbuck at c.8°S 153.5°W, on 23 March. On 43 out of 50 days at sea, densities were under 1.0/hr, and on 29 days none was recorded at all. Unexpectedly, none were

seen around Caroline on 17 or 26 May and few were observed around Flint and Vostok.

White Tern *Gygis alba*.

Overall this was the fifth most abundant bird (Table 1, Fig. 2), but, like noddies, White Terns were commoner on the outward leg. This is again likely to be due to the difference in proximity to nesting islands on the two legs. Of the total of 505, 278 (55%) were within c.70km of islands. This is a lower proportion than for the less pelagic noddies. The most distant from land were a few on 26 April, about equidistant (c.350km) from Kiritimati and Malden. This is further from land than the remotest Black Noddies we saw, but closer than the remotest Brown Noddies. White Terns were seen on 37 of the 50 days at sea, i.e. more frequently than either of the noddies. Six birds were seen from the boat flying around the single Coconut Palm *Cocos nucifera* on Starbuck on 26 March, strongly suggesting potential breeding there.

FEEDING FLOCKS

A feeding flock is defined here as an aggregation of five or more feeding birds, irrespective of species (King, 1970, 1974; Kepler *et al.*, 1992). A total of 107 feeding flocks was encountered, comprising 5856 birds, 42% of the total number of birds seen. This is a lower percentage than those reported by King 1970 (69.5%) and Kepler *et al.* 1992 (56.5%).

Most feeding birds were seen between Vostok and Malden (Fig. 3). Fewer feeding birds were seen in the area around Kiritimati, despite the large seabird colonies there. Days with few or no feeding birds tended to be mostly in the west and south of the cruise area where there are fewer seabird islands. Breeding birds may have been nearer the limit of their foraging ranges here.

Kepler *et al.* (1992) only saw one feeding flock (of 85 Sooty Terns) during 30 hours of observations in the Line Islands in September 1988. This may be due partly to breeding phenology, but also reflects the greater average distance of the 1988 cruise track from islands and shallow waters.

Feeding flock sizes ranged from five to 600 birds. The mean flock size was 55, but 40% of flocks contained less than 26 birds and only 9% of flocks exceeded 100 birds.

Fifteen species or species groups were recorded in feeding flocks. The number of species represented in a single flock varied from one to ten. Only four out of the total of 107 flocks contained more than five species, and all were on the northbound leg. Three of the four were near Malden on 27-29 March. In this region feeding flocks followed the boat for several hours on two days. The ten-species flock, containing c.200 birds in total of which c.100 were Spectacled Terns, followed the boat for four hours on 28th. The maximum number of species recorded in this flock at any one time was eight.

The three other flocks with six or more species were also predominantly of one species, and/or were relatively small flocks. Sooty Terns comprised 58% of all flocking birds and noddies and Red-footed Boobies together a further 31%. Other species formed much smaller components of flocks.

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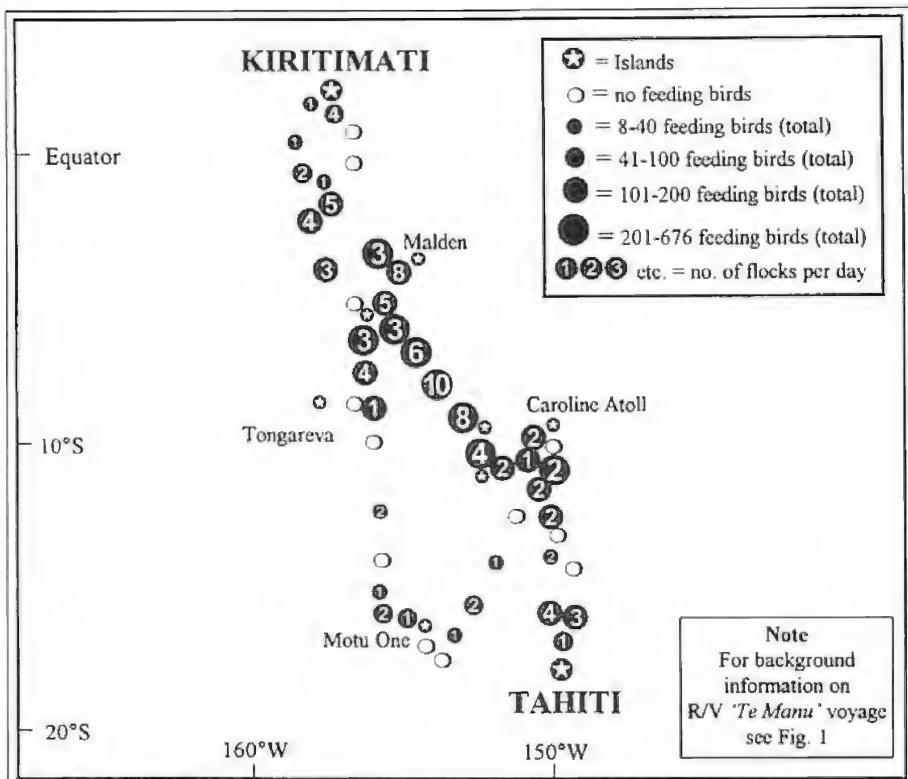


Figure 3. Daily observations of feeding flocks.

(Wildlife Warden, Kiritimati) for help and hospitality; to Bill Bourne for valuable comments on an earlier draft, to ICBP (BirdLife International) for assistance with funding and especially to our families and friends for their tolerance and support.

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Red-footed Booby *Sula sula* (adult) flying past Eclipse Point, Diego Garcia, 27 March 1996.
Photo: Petty officer (Phot) Brayley RN.

GALÁPAGOS ALBATROSSES AT SEA
by Dr W.L.N. Tickell

Descriptions of Galápagos¹ or Waved Albatrosses *Diomedea irrorata* ranging over vast areas of the Pacific Ocean have been rare (Nelson 1968). When M.P. Harris (1973) warned that there were no undoubted records at sea to the west of the Islas Galápagos there had been only 28 reported sightings anywhere since 1881. In that year HMS *Triumph* arrived off Callao, Peru, and Captain Markham shot the first specimen to reach the British Museum (Salvin 1883).

There are now 102 records of Galápagos Albatrosses in the ornithological literature, 64 of them in R. L. Pitman's (1986) atlas and 13 in issues of *Sea Swallow*. This equatorial species was intentionally omitted from the Atlas of Southern Hemisphere Albatrosses (Tickell 1993). Recently an additional 282 unpublished observations have been contributed in response to personal letters.

Almost all Galápagos Albatrosses breed on Isla Española (Hood Island) (1.4°S 89.7°W), the most southeasterly of the Islas Galápagos; a few pairs breed on Isla de la Plata (0.3°S 81.1°W) just off the mainland of Ecuador near the port of Manta.

Galápagos Albatrosses are said to be rarely encountered far out to sea (D. Day, T. Arnbom, B. Haase pers. comm.), but most shipping appears to follow the coast of South America and without habitual and precise negative reporting, blank areas on distribution maps may always be imagined as due to the absence of vessels and observers. The mapping of R.L. Pitman (1986) confirmed the absence of Galápagos Albatrosses from much of the equatorial Pacific Ocean. In a broad band between the equator and latitude 20°S , from the coast of South America to longitude 160°W , 423 positive and negative reports were plotted. West of the Islas Galápagos, albatrosses were seen in only two (<1%) of 297 locations observed, and they were comparatively close to the islands. Between the islands and the mainland of South America they were seen in 40% of 126 locations observed.

Harris's (1973) proposed distribution was a triangle of ocean between the Islas Galápagos and the adjacent mainland. Subsequent sightings have been much as he predicted. Fig. 1). Most have been of single birds off the coasts of Ecuador and Peru from latitude 1°S to 15°S , but quite large numbers have sometimes been seen between 5°S and 8°S . S.E. Chapman (RNBWS 1973) saw aggregations of up to 200 in September 1967 near the Islas Lobos de Tierra (6.5°S), P. & K. Meeth (RNBWS 1983) saw 450 in March 1980 off the Islas Lobos de Afuera (7.0°S) where they obtained a daily count of 580. In roughly the same area, R.L. Pitman recorded a daily total of 700 in December 1985.

Galápagos Albatrosses are rare north of the equator (Pitman 1986) with only two records off the coasts of Panama and Colombia (Ridgely & Gwynne 1989, Hilty & Brown 1986). J. Jehl (1973) saw none off northern Chile in June 1970 and B. Haase (pers. comm.) sailing north from Iquique in July 1988 did not encounter any Galápagos Albatrosses until almost 10°S off Peru. Three have been seen in February off Punta Dona Maria, Peru (14.9°S) (RNBWS 1973).

¹ F.C. Du Cane Godman (1910) translated *Diomedea irrorata* (Salvin 1883) as Waved Albatros [sic], but after the California Academy of Sciences Expedition of 1905-06, L.M. Loomis (1918) named the endemic species for its island breeding grounds, and R.C. Murphy (1936) in his great work, *Oceanic Birds of South America* considered Galápagos Albatross more appropriate.

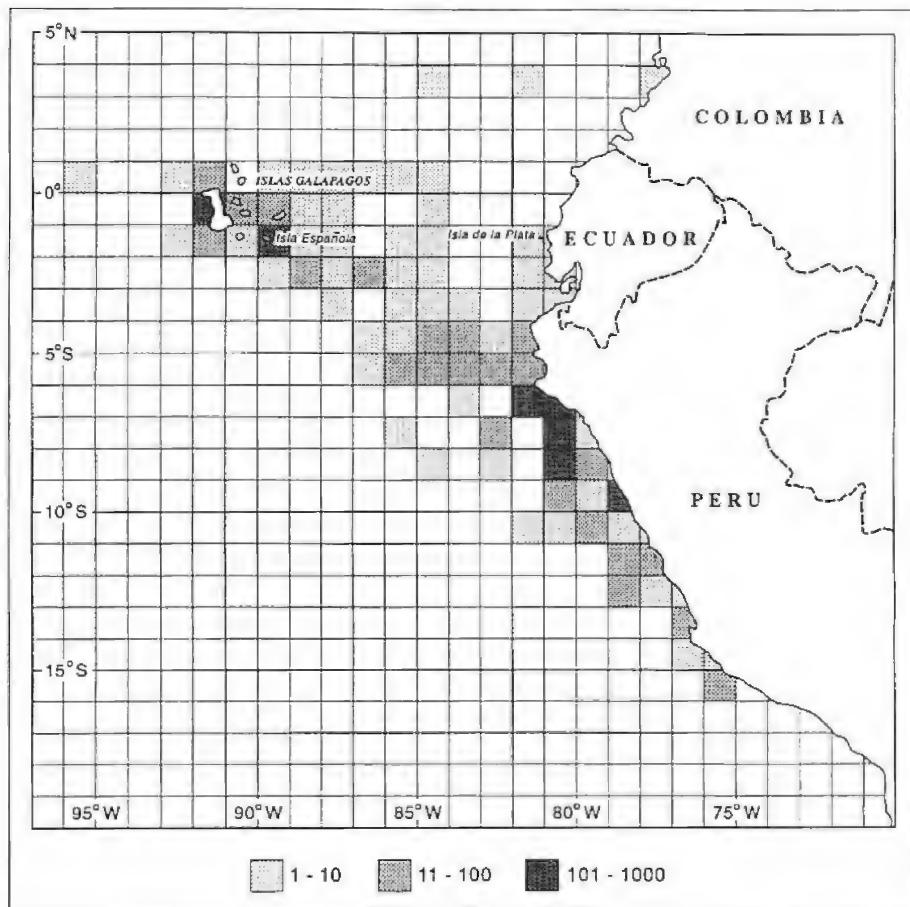


Figure 1. Map of the coast of South America and equatorial Pacific Ocean as far as 95°W. Shaded 1° x 1° squares indicate orders of magnitude representing the maximum numbers of Galápagos Albatrosses reported in any single observation. Locations on the 1° co-ordinates have been plotted to the south and west respectively.

In 1905-06 E. W. Gifford noticed that albatrosses were absent from the vicinity of the Islas Galápagos in December, January and February. During the rest of the year, although they were quite common at sea in the south of the archipelago, only occasional individuals were encountered elsewhere among the islands (Loomis 1918). R. L. Pitman (1986) counted 61 north of Isla Isabela during one day in November 1981, but observations between the islands (Duffy & Merlen 1986, Hayes & Baker 1989) tend to confirm early impressions that albatrosses are infrequent away from waters adjacent to Isla Española. On 27 October 1989, in a two-hour watch within sight of the breeding grounds, D. Roberson (unpublished journal reported:

"A beautiful, calm (Beaufort 3-4) day, starting about 20 nm S. of Española. (Hood I.), Galápagos, then passing within 5nm off its SE point, then continuing NE to a point 25nm off San Cristobel. Zillions of birds, plus herds of *Tursiops* & *Delphinus*. The largest aggregation of albatrosses I've seen (450)

Sea Swallow 45

was with *Delphinus*, plus hundreds of boobies / frigates. On the next watch Robin had another feeding flock of 550 albatross.....Daily total 1200."

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THE LARGER WHITE-HEADED GULLS WINTERING AROUND THE SOUTHERN COASTS OF ASIA

By Dr W.R.P. Bourne

INTRODUCTION

The allies of the Herring Gull *Larus argentatus* present one of the more complex problems in avian taxonomy, which has given rise to an enormous literature. While the European and North American representatives are well-known, and have been described by Grant (1987), less progress was made with the populations breeding in northern Asia and wintering around its southern coasts until Shirihai (1995) recently published a preliminary summary of the forms found in Israel, and Kennerly *et al.* (1995) a more detailed account of those occurring in Hong Kong. It may therefore be useful to provide a comparative account of those seen around Arabia in the course of naval operations at sea (Bourne 1991).

All these birds have a basically similar sequence of plumages, starting with a cryptic immature plumage with a mottled brown back (including the mantle and wing coverts), streaked head, neck and underparts with a paler belly, dark flight feathers, tips to their tails, bills and eyes, and pink legs and feet. As they mature, they develop over about four years uniform grey backs, white heads, underparts and tails, and yellow eyes, legs, and bills, with a distinctive red spot at the end of the bill. In NW Europe, there are two contrasting forms: the pale-backed, pink-legged, comparatively coastal and sedentary Herring Gull, and the dark-backed, yellow-legged, more widespread and migratory Lesser Black-backed Gull *Larus fuscus*. The rest of the Old World is occupied by a bewildering mosaic of intermediate forms, which sometimes hybridise, (Haffer 1982), whose distribution is often further complicated by long migrations between inaccessible areas at the opposite extremities of the land mass (see Map page 90).

The northern coasts of the Indian Ocean are traditionally said to be visited by two forms, Heuglin's Gull *Larus heuglini*, which breeds along the western coast of Siberia, and the Yellow-legged Gull *Larus cachinnans*, which breeds around the central Eurasian waters, sometimes treated as species, and sometimes as races of either the Lesser Blackback (Meinertzhagen 1934) or Herring Gull (most other authors). Subsequently a number of additional forms have also been described, the most distinct being the Vega Gull *Larus vegae*, which breeds in east Siberia and winters down the east coast of Asia, and Armenian Gull *Larus armenicus*, which breeds by the mountain lakes around Mount Ararat and winters mainly in the great deltas of Egypt and Iraq.

These gulls proved the most interesting birds regularly seen at sea in the approaches to the Gulf during the winter. I first met them in 1987-88, and on returning home studied the large collection acquired in the former British Empire, now reinforced by the Meinertzhagen collection of representative specimens from key breeding areas to the north (whose identity there seems no reason to doubt, although their origin is often less certain) in the (British) Natural History Museum and Royal Museum of Scotland. I checked my conclusions on returning to the Gulf in 1990-91, by which time it was also possible to study wings from a dozen bodies found along the shore and a similar number of locally-caught young birds maturing in Dubai Zoo. As in NW Europe, they formed two groups, with a number of sub-groups, as follows. (Birds which still retain a majority of the immature plumage will hereafter be referred to as immatures, and those which still retain traces of immaturity but have acquired a

majority of the adult plumage will be referred to as sub-adults).

GROUP I

The adults and sub-adults were lightly-built with fairly dark grey backs and dark, pointed wing-tips with white spots in the tip, and irides varying from brown to grey, legs varying from pinkish to yellowish, and in some cases dark rings around the tips of their bills, though these colours were often difficult to see at sea and, as reported by Yésou and Filchagov (1993), did not appear distinctive since they could be seen to change as the birds matured in Dubai Zoo. The immatures had dark brown backs and wingtips with two bars on the upper wing on the coverts and secondaries. They were commoner in the southern Gulf, Indian Ocean and Red Sea, and five varieties were distinguished.

Group Ia were comparatively large, with moderately dark grey backs and seldom any dark band around the bill-tip. They were the commonest form out at sea in the Indian Ocean and approaches to the Gulf, and there were some in Dubai Zoo. They were arriving when I did in late November, and leaving by the time I did, in February and early March, when there was a conspicuous passage up the central Gulf. They agree with some forty adult *taimyrensis* from the northern shores of the Indian Ocean between Somalia and Bangladesh, seven from the mouth of the Yenisai River in north-central Siberia, and a moulting bird from Foochow, China, in January 1896 (Bourne 1994) in the Natural History Museum. Grant (1986) also reproduces a photograph of one from the coast of Kenya, and one has been reported from Alaska (Bailey 1948).

Group Ib, which appeared to predominate along the coast of the United Arab Emirates, where there were also several in Dubai Zoo, appeared similar to the last form but distinctly smaller in size. An adult found dead on the shore in Dubai on 29 January 1988 had a yellow bill and legs and a pale tongue inside the black at the tips of the primaries, as in specimen 65M3959 in the Meinertzhagen Collection from Kanish near Tomsk, central Siberia, attributed to *barabensis*. A sub-adult found with it and another found there subsequently deposited in the Natural History Museum also had short wings (407, 411 and 409mm), dark wingtips like those of *armenicus*, and in the first case an indistinct dark ring around the tip of the bill, though it was longer than in *armenicus* (52mm compared to a mean of 46.8 and range of 43.8-51.1 for 13 *armenicus*), also pink legs.

Group Ic was only identified alive in the harbour at Bahrain, where about a dozen adults spent the winter. They were among the largest gulls seen, as large as the largest Ia, with darker backs and more streaking of the head and neck, and it seems possible that they may sometimes have been mistaken for Greater Blackbacks *Larus marinus* in the past (Bourne in press). Six wings of birds of various ages in various stages of moult were collected along the coast of Oman between 3 January and 10 February 1992, and one of an adult completing the moult at Dubai on 19 March 1995. They resemble ten nominate *heuglini* from NW Siberia and between the Zubair Is. in the southern Red Sea and Patna Bihar on the central Ganges in India in the Natural History Museum, and Grant (1986) reproduces photographs from the coast of Kenya. Specimen 65M3946 in the Meinertzhagen Collection from St Andrews, Scotland, on 19 November 1949, attributed by Meinertzhagen (1950) to this form, appears to be a very similar sub-adult *intermedius* in moult.

Group Id was seen most commonly along the Suez Canal and off northern Qatar

in early December 1987 (Bourne 1988), presumably in the latter case on migration because they were not seen again there, and only occasionally elsewhere in the Gulf, though two or three birds then often occurred together. They resembled Ib, but had a well-defined triangular black wing-tip with only a small white spot, and well-defined dark band round the tip of a short bill, which was also noticeable in the immatures accompanying them. They resembled two *armenicus* in the Natural History Museum from NW Iran, two from Egypt in 1870, where they are now known to winter commonly (Meininger and Sørensen 1993) and 14 from Iraq between September and January. Four of these from Baghdad in early January 1923 identified by Meinertzhagen as first *vegae* and then *taimyrensis* were said to have the eye-ring orange, the iris "stone brown", and the feet "dull stone yellow".

Group Ie were only seen occasionally during our passage of the Suez Canal in the late autumn and early spring and in the Gulf in the winter. They were small, with the darkest backs seen, which contrasted with their white heads, necks and underparts, so that they stood out from all the other gulls at a distance. They resembled many nominate *fuscus* seen moving north up the south coast of Cyprus in early April in the past.

GROUP II

These showed an equally marked variation. In general they were more heavily-built, with broader wings which had more rounded tips, and often paler than the preceding forms, with yellower eyes and bright yellow legs. Two main varieties were distinguished.

Group IIa were intermediate in size with medium grey backs, fairly dark wing-tips, and often brilliant yellow eyes and legs. They predominated in the Mediterranean, and these must be *michahellis*, which is known to migrate north in summer rather than south, in winter. A few were seen along the Suez Canal, but none were recognised in the Gulf. Similar specimens in the Natural History Museum from east central Asia, the eastern Indian subcontinent, and China, and two wings from the vicinity of Lake Baikal presumably belonging to "*mongolicus*", seem barely separable.

Group IIb were usually larger, with paler backs than any previous form. The adults had more white at the wingtip, indeed the one short (404mm) wing collected at Bahrain had the last 5cm of the outer primary entirely white, like a Great Blackback, and there were pale tongues behind the black primary tips, as shown by Witherby (1919-24), so that the whole end of the wing appeared white with dark markings at a distance, as in the Common Gull *Larus canus*. A very pale specimen 65M3950 taken at Baghdad on 6 January 1923 tentatively identified by Meinertzhagen as *mongolicus* and someone else as *argentatus* has this distinctive wing-tip, and is presumably also a pale nominate *cachinnans*. They arrived late, towards the end of December, and afterwards predominated in the upper Gulf, though few were seen further south. They left early, in February, when the immatures, which had rather pale, sandy backs and upperwings and a single dark upper wing-bar along the secondaries, came much further south, were still moulting their wing-coverts. There are also specimens from Pakistan, where they appear to have been collected inland more often than Ia, but they appear to be replaced by birds of the preceding type to the east and west.

DISCUSSION

All these birds are clearly closely related, having presumably evolved in the ten thousand years since the last glaciation, and are basically similar in their appearance, behaviour and reputedly molecular biology. Their differences in appearance involve either the back, which appears to become darker in direct proportion to the temperature where they moult in their winter quarters (Salomonsen 1955), or the retention of immature characters, including the darker eyes of the Group I birds, banded bills and darker wing-tips of *armenicus*, and pink legs of *argentatus*. These differences in appearance also appear originally to have been accompanied by differences in ecology, the Group I birds being widespread and migratory and the Group II forms (and Herring Gull) sedentary along the shore, for example, though this is now often masked by their combination to exploit the activities of man.

If the situation around Arabia is compared with that summarised by Shirihai (1995) for Israel, apparently *michahellis* is non-existent in the Gulf, *fuscus* scarcer, and *cachinnans* is possibly and *taimyrensis* certainly commoner in the Gulf than in the eastern Mediterranean. Judging by old specimens, the same applies to the east in the Indian subcontinent, while *armenicus* is equally common in the north Gulf, but becomes scarcer to the SE, where it appears to be replaced by *barabensis*, whose sub-adults are very similar to it in appearance so that they may have been missed in the past.

If the situation in the Middle East is compared with that reported by Kennerley *et al* (1995) for Hong Kong, they also consider *taimyrensis* the commonest form, followed by *birulae*, with occasional *heuglini*, *vegae*, *mongolicus*, possibly *barabensis*, and one possible *smithsonianus* from America. The main problem with their conclusions is that they are not supported by specimens - there only appears to be one *taimyrensis* from China, for example (Bourne 1994), and clearly this needs more attention. It is usually not difficult to find dead birds lying about on beaches - we found a dozen in the Gulf, without having to kill them. If it is impossible to save the whole body, a dried wing with notes of the other measurements, and (if the body is fresh) the colours of the bare parts is usually enough.

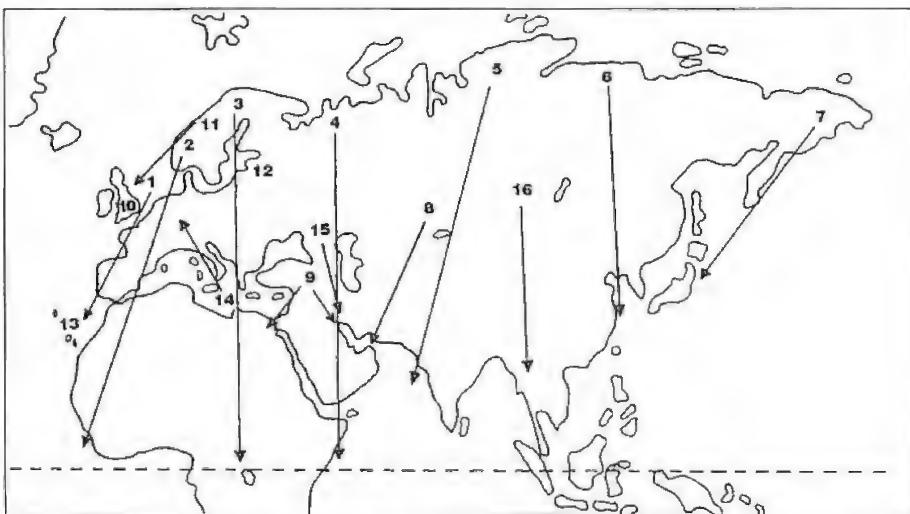
Putting these observations together, it would appear that the Group I forms all occupy the position of the Lesser Blackback in western Europe, being lightly-built with dark backs and breeding in the north before carrying out long migrations to spend much of the year in hotter climates, where they often forage at sea. They include from west to east *graellsii*, *intermedius*, *fuscus*, *heuglini*, *taimyrensis*, "*birulae*" and *vegae*. Similarly the Group II forms occupy the position of the Herring Gull (which seems to be a recent immigrant to the Old World from America), being more heavily-built with paler backs, and breeding further south where they only carry out short, brief migrations in midwinter, when they do not go far out to sea. They include from west to east *atlantis*, *michahellis*, *cachinnans* and "*mongolicus*" (see Map).

It is debatable how these forms should be classified, especially since birds from all the main groups have apparently now met and started to hybridise in western Russia (Filgachov 1996). But according to Filchagov *et al.* (1992) there is a difference in the ecology of the nominate *fuscus*, which might be derived from the rather similar insular Pleistocene relict *atlantis* of the Atlantic archipelagoes, and *heuglini*, which might be derived from the equally similar *armenicus* of the higher middle Eastern mountain lakes, so it is arguable these

and their allies should be treated as distinct species. While the Yellow-legged Gulls which are distributed across a variety of terrain further south also appear locally variable, there seems to be less evidence for any similar difference, unless it is between big, pale nominate *cachinnans* of the hot central Eurasian seas, and the smaller, darker birds at the periphery, and possibly they should also be treated as a third species?

There remains the question how to classify the long-overlooked smaller forms *armenicus* and *barabensis* wintering in the Gulf. While it seems likely that *cachinnans*, which must have occupied a comparatively secure position in the south during the glaciations, is directly descended from the parental stock of all the Old World gulls of this group, and in the past there was a tendency to classify *armenicus* with it, the latter seems very similar to *heuglini*, from which it appears to differ mainly in its short bill and retaining immature wing and bill markings as an adult. Thus it might also be a montane Pleistocene relict population of an ancestral *heuglini*, which has moved up-hill to breed, and started to winter in the estuaries of the adjacent great rivers, following the improvement in climate which caused its allies to breed further north and winter further south.

On the other hand, while *armenicus* has a very distinctive dark wing-tip, the next breeding population of Type I gulls to the north, *barabensis*, which also looks and behaves even more like a small *heuglini*, has pale tongues at the end of the inner webs of the outer primaries of the sort found in *cachinnans*, which suggests limited past hybridisation with that group in the way that it is now becoming evident is widespread among these birds (Filchagov 1996). Thus it seems possible it may now have formed a stable population of hybrid origin but still closest to *taimyrensis*, and therefore possibly best treated with it as a race of *heuglini* (though it is notable that I also found another bird resembling a small *cachinnans* in Bahrain).



Distribution and migration of the Herring and Lesser Black-back group of gulls.

KEY: 1: *Larus fuscus graellsii*. 2: *L. f. intermedius*. 3: *L. f. fuscus*. 4: *L. heuglini*. 5: *L. h. taimyrensis*. 6: *L. vegae birulae*. 7: *L. v. vegae*. 8: *L. heuglini* X *cachinnans*? *barabensis*. 9: *L. armenicus*. 10: *L. argentatus argenteus*. 11: *L. a. argentatus*. 12: *L. argentatus* X *cachinnans*? *omissus*. 13: *L. cachinnans atlantis*. 14: *L. c. michahellis*. 15: *L. c. cachinnans*. 16: *L. c. mongolicus*.

SUMMARY

The larger white-headed gulls wintering around the northern Indian Ocean appear divisible into two groups. One is a dark-backed ally of the Lesser Black-backed Gull *Larus fuscus*, in which the adult has a dark pointed wing-tip with white spots in the centre, and the immature two bars on the wing, probably best treated as a distinct species, Heuglin's Gull *Larus heuglini*, commoner in the south and out at sea. The other is a version of the paler-backed Herring Gull *Larus argentatus*, in which the adult has a whiter, more rounded wingtip with dark markings in the centre and the immature one bar on the wing, probably also best treated as a distinct species the Yellow-legged Gull *Larus cachinnans*, commoner inland in the north. Two smaller forms also occur in the Middle East, the Armenian Gull *Larus armenicus*, with a dark ring round the tip of a short bill and darker wingtip, which breeds around the mountain lakes, and winters mainly around the Egyptian and Iraqi deltas; and "*barabensis*", which may be a stable hybrid between Heuglin's and the Yellow-legged Gulls from central Asia, which winters in the lower Persian/Arabian Gulf, and when young resembles an Armenian Gull with a long bill, and when adult a small Heuglin's Gull.

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NEOTROPICAL BIRDWATCHING IN BELIZE.
by Leading Hand (Comms) A.H. Todd, RFA

My first visit to Central America took place when RFA *Oakleaf* anchored off Belize City 9-12 November 1995. I had read that Belize was a "birdwatcher's paradise" and determined to find out for myself during our stay. Whatever happened, the vast majority of bird species would be new to me, and I had been eagerly awaiting this visit for some considerable time.

Belize City. I proceeded ashore during the afternoon of 10th November, and from the libertyboat I observed a variety of seabirds including Magnificent Frigatebirds, Brown Pelicans, Laughing Gulls and three species of terns - Gull-billed, Royal and Sandwich Terns. At a local travel agents I booked a half-day guided birdwatching tour to the Crooked Tree Wildlife Sanctuary, some 33 miles NW of Belize City, for the following day. Having accomplished this, I then proceeded to do some local birdwatching in the vicinity of the Fort George Radisson Hotel. Great-tailed Grackles and Great Kiskadees were calling incessantly, and were to be found in large numbers around the trees and gardens, whilst Tropical Kingbirds perched conspicuously on wires, making occasional forays to snatch flying insects. Overhead, Magnificent Frigatebirds continued to patrol menacingly, and Brown Pelicans remained impossible to miss over the harbour and river area.

I had a little time to spare the next day, 11th, whilst waiting for my guide, Sam Tillet, to arrive. I therefore again did some birdwatching around the area of the Fort George Hotel. On the nearby shoreline I observed a few Ruddy Turnstones and a Sanderling. The latter was an interesting record, according to the *Checklist of the Birds of Belize*, being an uncommon or rare transient through Belize at migration periods. Rather more common, but an impressive sight nonetheless was a flock of 50+ Black Vultures thermalling over the city, their dark plumage with conspicuous white wing-patches, in stark contrast to the deep blue of the late morning sky. Sam arrived in good time to collect me, and we immediately departed on the 33 mile drive to Crooked Tree Sanctuary, and village. Sam is part-owner of the Crooked Tree Resort, and as I was to discover during the course of the afternoon, is an enthusiastic and knowledgeable birder.

Crooked Tree Wildlife Sanctuary. Large raptors were an ever present sight throughout the drive north, with Black and Turkey Vultures particularly evident. A single, aptly named, Roadside Hawk was seen on one occasion, and we had several sightings of Common Black-hawks including one obliging individual just north of the city, which remained on a telegraph pole while we stopped alongside, giving us extremely close views. A Belted Kingfisher perched in a small tree beside a roadside pond brought us to an abrupt halt further along the road. During this short stop we also observed Great Egret, Cattle Egret and Little Blue Heron around the edges of the pond. We eventually turned off the road onto the causeway leading through the Crooked Tree Sanctuary towards the village, some four miles distant. The Sanctuary itself comprises some 1800 hectares of shallow lagoons, creeks and marshes, and is managed by the Belize Audubon Society. We spent some time viewing the lagoons and surrounding vegetation from the causeway, and had soon added to the day's list Snowy Egret, Tricolored Heron, Green-backed Heron, Ringed Kingfisher, Green Kingfisher, Mangrove Swallow and Northern

Rough-winged Swallow. A pair of Ospreys were in the air over one of the lagoons, whilst the plentiful Snail Kites flapped leisurely over the entire area in search of their favourite and possibly only food - apple snails. We continued on over the causeway and stopped briefly at the information centre in order for me to pay the modest entry fees. The on-duty ranger was friendly, and most informative.

Having collected my permit, we then drove the short distance to the village where we were to commence the main walk of the afternoon. The village, with its dirt streets and houses on stilts, was a charming place; and the inhabitants, including the numerous dogs, were friendly and hospitable. The gardens and surrounding trees and bushes were home to a bewildering array of warblers, flycatchers and other small passerines, and I was grateful for the services of Sam, without whom I would have struggled to identify many of the species. The brightest birds of the day were undoubtedly the male Vermilion Flycatchers, with their striking crimson plumage. Other flycatchers we saw included Common Tody, Least Flycatcher, Rose-throated Becard, and Social Flycatcher, the latter being a smaller and almost identical version of the ubiquitous Great Kiskadees. We saw only one hummingbird during the walk - a Rufous-tailed - but this tiny little bird was one of my favourites of the day. Warblers observed included Black-and-white, Blue-winged, Yellow-throated, Yellow, Magnolia, Hooded, Common Yellowthroat and American Redstart. The shore of the adjacent lagoon produced Least Sandpiper, Spotted Sandpiper and Killdeer. A nearby marshy area had Cattle Egrets, Little Blue Herons (including white immatures) and six White Ibis. A commotion amongst the birds on the ground was explained when an elegant Gray Hawk glided over the trees, giving us superb views of its finely barred underparts. Several ponds around the village were frequented by Black-bellied Whistling Ducks and Northern Jacanas; these rail-like birds have a chestnut coloured plumage, with yellow wing-patches, and extremely long toes, which enable them to walk on floating plants. Sam explained that the local name for this jacana is "Jesus Bird", because of this illusion of walking on water. As we continued our walk around the village outskirts we saw Red-vented and Golden-fronted Woodpeckers, Olive-throated (Aztec) Parakeets, Hooded and Black-cowled Orioles, Melodious Blackbird, Blue-gray and Summer Tanagers, Clay-colored Robin, Gray Catbird and Blue-gray Gnatcatcher. On the way back across the causeway, we added to the day's total Pied-billed Grebe and Fork-tailed Flycatcher. It was fully dark as we arrived back in the city and said our goodbyes before Sam left to return to Crooked Tree, and I headed for the hotel bar for a cold beer, prior to returning on board.

Conclusion. I thoroughly enjoyed my visit, but wished I could have stayed longer at Crooked Tree Sanctuary, and the village. For those with more time to spare, I would recommend a full-day outing, including canoe trip to more remote areas. Accommodation is available (but don't expect the Holiday Inn!), and an overnight stay would ensure the best early morning birdwatching, prior to the heat of the day. I would certainly plan to do that on any future visit to Belize.

Useful advice. How to get there? I booked and paid for my tour at S & L Travel Services, North Front Street, Belize City. Tel: (501) 2-77593/75145. But it is also possible to book direct with Sam Tillet at Crooked Tree Village. Tel: (501) 2-12026.

Field Guides. I found the National Geographic Society *Birds of North America*, and Roger Tory Peterson's *Mexican Birds* to be very adequate for my visit. A copy of the *Checklist of the Birds of Belize*, giving the status of birds in the country, can

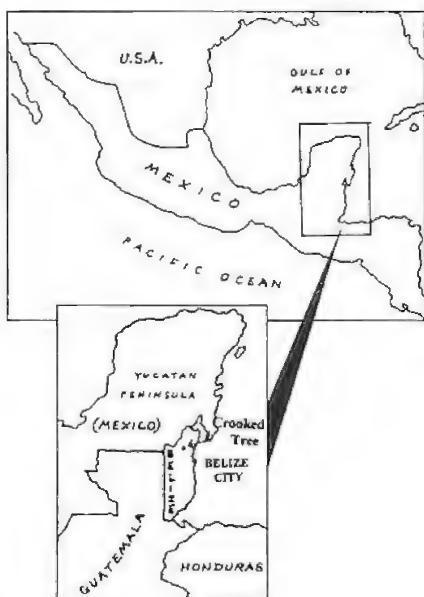
be purchased locally. I obtained a copy in the Fort George Hotel shop.

Medical. Without wishing to state the obvious, a few pointers for anyone visiting the area: Prior to arrival, one should already be taking a course of anti-malaria pills. Long trousers and insect repellent are a must - the mosquitos are of the heavy duty variety! A sun-hat and sun barrier-cream are recommended. Plenty of drinking water should be carried, although refreshments are available in the village.

A.H. Todd, 70 Anderson Park, Doagh, Co. Antrim, N. Ireland.

Bird List - Belize City and Crooked Tree Wildlife Sanctuary 9 - 12 November 1995

Pied-billed Grebe	<i>Podilymbus podiceps</i>	Clay-colored Robin	<i>Turdus grayi</i>
Brown Pelican	<i>Pelecanus occidentalis</i>	Gray Catbird	<i>Dumetella carolinensis</i>
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	Tropical Mockingbird	<i>Mimus gilvus</i>
Olivaceous Cormorant	<i>Phalacrocorax olivaceus</i>	Yellow-throated Vireo	<i>Vireo flavifrons</i>
Magnificent Frigatebird	<i>Fregata magnificens</i>	Blue-winged Warbler	<i>Vermivora pinus</i>
Great Egret	<i>Casmerodius albus</i>	Yellow Warbler	<i>Dendroica petechia</i>
Snowy Egret	<i>Egretta thula</i>	Magnolia Warbler	<i>Dendroica magnolia</i>
Little Blue Heron	<i>Egretta caerulea</i>	Yellow-throated Warbler	<i>Dendroica dominica</i>
Tricolored Heron	<i>Egretta tricolor</i>	Black-and-white Warbler	<i>Mniotilla varia</i>
Cattle Egret	<i>Bubulcus ibis</i>	American Redstart	<i>Setophaga ruticilla</i>
Green-backed Heron	<i>Butorides stratus</i>	Ovenbird	<i>Seirurus aurocapillus</i>
White Ibis	<i>Eudocimus albus</i>	Northern Waterthrush	<i>Seirurus noreboracensis</i>
Black-bellied Whistling Duck	<i>Dendrocygna autumnalis</i>	Common Yellowthroat	<i>Geothlypis trichas</i>
Black Vulture	<i>Coragyps atratus</i>	Hooded Warbler	<i>Wilsonia cinerea</i>
Turkey Vulture	<i>Cathartes aura</i>	Yellow-breasted Chat	<i>Icteria virens</i>
Osprey	<i>Pandion haliaetus</i>	Blue-gray Tanager	<i>Thraupis episcopos</i>
Snail Kite	<i>Rostrhamus sociabilis</i>	Summer Tanager	<i>Piranga rubra</i>
Common Black-hawk	<i>Buteogallus anthracinus</i>	Melodious Blackbird	<i>Dives dives</i>
Great Black-hawk	<i>Buteogallus urubitinga</i>	Great-tailed Grackle	<i>Quiscalus mexicanus</i>
Gray Hawk	<i>Buteo nitidus</i>	Black-cowled Oriole	<i>Icterus dominicensis</i>
Roadside Hawk	<i>Buteo magnirostris</i>	Hooded Oriole	<i>Icterus cucullatus</i>
Killdeer Plover	<i>Charadrius vociferus</i>	Yellow-billed Cacique	<i>Amblycerus holosericeus</i>
Northern Jacana	<i>Jacana spinosa</i>	TOTAL 77 species.	
Spotted Sandpiper	<i>Actitis macularia</i>		
Ruddy Turnstone	<i>Arenaria interpres</i>		
Sanderling	<i>Calidris alba</i>		
Least Sandpiper	<i>Calidris minutilla</i>		
Laughing Gull	<i>Larus atricilla</i>		
Gull-billed Tern	<i>Sterna nilotica</i>		
Royal Tern	<i>Sterna maxima</i>		
Sandwich Tern	<i>Sterna sandvicensis</i>		
Pale-vented Pigeon	<i>Columba cayennensis</i>		
Ruddy Ground Dove	<i>Columba talpacoti</i>		
Olive-throated (Aztec) Parakeet	<i>Aratinga nana</i>		
Groove-billed Ani	<i>Crotophaga sulcirostris</i>		
Rufous-tailed Hummingbird	<i>Amazilia tzacatl</i>		
Ringed Kingfisher	<i>Ceryle torquata</i>		
Belted Kingfisher	<i>Ceryle alcyon</i>		
Green Kingfisher	<i>Chloroceryle americana</i>		
Red-vented Woodpecker	<i>Melanerpes pygmaeus</i>		
Golden-fronted Woodpecker	<i>Melanerpes aurifrons</i>		
Common Tody-Flycatcher	<i>Todirostrum cinereum</i>		
Least Flycatcher	<i>Empidonax minimus</i>		
Vermilion Flycatcher	<i>Pyrocephalus rubineus</i>		
Great Kiskadee	<i>Pitangus sulphuratus</i>		
Social Flycatcher	<i>Myiozetetes similis</i>		
Tropical Kingbird	<i>Tyrannus melancholicus</i>		
Eastern Kingbird	<i>Tyrannus tyrannus</i>		
Fork-tailed Flycatcher	<i>Tyrannus savanna</i>		
Rose-throated Becard	<i>Pachyramphus aglaiae</i>		
Mangrove Swallow	<i>Tachycineta albilinea</i>		
Northern Rough-winged Swallow	<i>Siegodopteryx serripennis</i>		
Brown Jay	<i>Cyanocorax morio</i>		
House Wren	<i>Troglodytes aedon</i>		
Blue-gray Gnatcatcher	<i>Poliopilia caerulea</i>		



OBSERVATIONS OF BIRDS ON DIEGO GARCIA
26-29 MARCH 1996
by Colour Sergeant Peter Carr, Royal Marines

Introduction.

Diego Garcia is the only permanently inhabited island within the Chagos Archipelago, in the Indian Ocean. References to the islands' ornithology are few, despite having a population of over 1000 personnel on the island for over twenty years. The most comprehensive report to date has been by Dr. W.R.P. Bourne (1972), and Dr David Ballamy's important book *Half of Paradise* (1979). Other papers include Bill Curtis's report (1975) of his visit there in RFA *Reliant*, and LMA M.J. Howells (1982) lists twenty five species for the island during a year stationed on Diego Garcia during 1981-82. Finally, Cochrane (1992) recorded his observations whilst surveying a new coral offshore islet, 2-4 Oct'91.

A detailed set of counts was undertaken, between 26-29 March 1996, whilst on a brief visit to the island.

The only area not surveyed was the designated nature reserve north of Minni Minni. Highlights of the trip were the proliferation of migratory waders using the airfield and Point Marianne as a fuelling stop; an extremely close inshore seabird passage past Eclipse Point on the morning of 27th; and the large number of egrets *Egretta sp.* feeding on the islands' grassy areas.

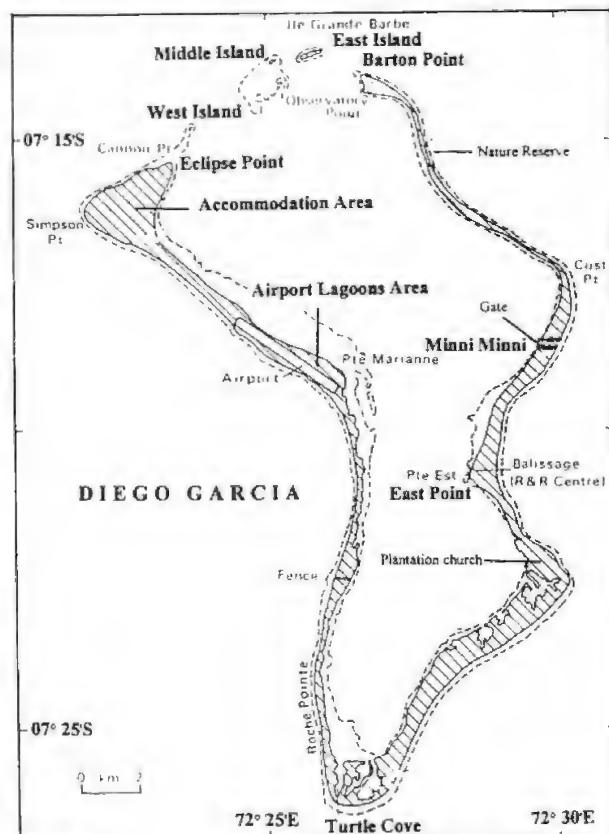
Observations.

Thirty three species of birds were observed on the island, 14 of which were not recorded in 1981/1982. The following is a summary of observations made:

Red-footed Booby *Sula sula*

Between 0800-1200

hours on 27th, an estimated 400 birds per hour were passing East to West past Eclipse Point, all within 100 metres of the shore, some within 5 metres. A smaller passage of approx. 120 birds per hour was noted on the mornings of 28 and 29th. All stages of plumage were seen; full adult and juvenile plumages



predominated in equal proportions. Sub-adult types comprised less than 10%. All adults noted were assessed to be of the typical white morph (Harrison 1983), agreeing with previous observations from the island (Bourne 1971). This species was presumed to be breeding on West Island. At least 250 adults were viewed sitting on the landward side of the island, the air above West Island was constantly full of wheeling juvenile and adult birds. No such activity was noted above Middle or East Island.

Lesser Frigate-bird *Fregata ariel*

A total of 12 passed Eclipse Point moving East to West on the morning of 27th. All flew along the shore line and passed overhead.

Frigate-bird sp. *Fregata sp.*

Several frigate-birds were seen circling above West Island and a total of 14 were noted from various points around the island. All provided distant aerial views and no conclusive identification could be made.

Great White Egret *Egretta alba*

A single winter plumaged bird was feeding on the shore line at Point Marianne amongst Cattle Egrets and Little Egrets on 29 March. Due to non-breeding plumage it could not be sub-specifically assigned, the African sub-species *melanorhynchos* has been recorded on the Seychelles (Hancock and Kushman 1984). This is the first record of this species from the Chagos Group.

Western Reef-heron *Egretta gularis*

Distant views were had of a dark egret feeding on the Eastern shore line, but it flew out of view when approached. This was probably a dark phase Western Reef-heron, however due to the distant views, dark morph Little Egret (Cramp *et al* 1977) cannot be ruled out.

Cattle Egret *Bubulcus ibis*

This species has undergone a major population increase in the past 14 years. It was noted as common, "with up to nine feeding together around the accommodation", in 1982 (Howells 1982). This species is now very common and can be found on any area of grassland anywhere on the island. A flock of 148 were noted loafing on the airfield on the afternoon of 26th. Other gatherings of note included 86 feeding on a boggy piece of grassland by the airfield fire station and 44 feeding together on two puddles in the accommodation area both on 27th. The total island population is assessed to be in the region of 450 birds. Several were moulting out of breeding plumage, indicating a breeding season ending in January or February. The nesting site at East Point (Bourne 1971, Howells 1982) was searched for, but no evidence of a colony was located.

Little Green Heron *Butorides striatus*

This species has either increased over the past fourteen years or was possibly under-recorded during 1981 and 1982, when only 26 were recorded in nine months (Howells 1982). Up to six birds were noted daily, 26-29th, normally picked out on call as they were flushed. Point Marianne usually held at least three. No subspecific identification was attempted on birds in the field.

Glossy Ibis *Plegadis falcinellus*

A single Glossy Ibis was seen daily feeding on the airfield lagoon. Its origin is unknown, however it was extremely wary and appeared totally wild. No plumage features, i.e. cage wear or evidence of pinioned wings was noted. This is the first record of this species for the Chagos Archipelago.

White-breasted Waterhen *Amaurornis phoenicurus*

Confirmed as breeding on the island among the reedbeds of the airfield lagoon - a single bird, plus an approx. 10-day old chick, were watched feeding together on the lagoon on 27th. Moorhen *Gallinula sp.* have been recorded on Diego Garcia before (Loustau-Lalanne 1962) and it has been suggested that these records referred to this species (Bourne 1971). This is the first confirmed record for the Chagos Archipelago.

Crab Plover *Dromas ardeola*

Two birds were seen feeding together on the shore line at Point Marianne on 27th.

Grey Plover *Charadrius squaterola*

Seen every day of the survey in small numbers, eight on 27th was the maximum count. Normally located feeding or loafing on the grass of the airfield and in lesser numbers at Point Marianne.

Greater Sandplover *Charadrius leschenaultii*

Only located at Point Marianne, eight on 27th was the largest count.

Bar-tailed Godwit *Limosa lapponica* A surprise find on 29th at Point Marianne. Not recorded from the Chagos Archipelago before, this bird was possibly returning north, after overshooting on autumn migration.

Whimbrel *Numenius phaeopus*

Common on any grass area throughout the island, most numerous on the airfield. A flock of 18 were noted at Point Marianne on 26th, 45 birds were recorded on the island that day.

Wood Sandpiper *Tringa glareola*

Less than four were seen daily, the preferred habitat being fresh water puddles on the grasslands.

Common Sandpiper *Actitis hypoleucos*

Only noted on 26th, when six were feeding on a muddy stream outlet at Point Marianne. Less than four were seen daily, the preferred habitat being fresh waterpuddles on the grasslands.

Grey-tailed Tattler *Heteroscelus brevipes*

A single bird was present throughout the survey period at Point Marianne. It was out of the normal wintering range for this species, Malaysia being the closest regular area. However the habitat was correct for wintering individuals, and this species is noted for its vagrancy, (Hayman et al, 1986). This is the first record for the Chagos Archipelago.

Turnstone *Arenaria interpres*

Common, usually in small groups. Found all over the island except for in areas of dense *Scaevola*. The maximum count was 24 on 28th.

Little Stint *Calidris minuta*

A single in non-breeding plumage was found amongst 14 Curlew Sandpipers feeding on a boggy piece of grassland on the airfield on 29th. This constitutes the first record for the Chagos Archipelago.

Curlew Sandpiper *Calidris ferruginea*

Common on damp or boggy grass areas on the airfield and at Point Marianne. Counts of over 20 were had at Point Marianne on every visit

Marsh Tern *Chlidonias* sp*

Winter plumage Black/White-winged Terns were noted daily as individuals, or in small flocks of up to eight feeding in typical marsh tern style on the fresh water lagoons on the airfield. All appeared to be in transit. Birds would drop in at the southern end of the lagoons and slowly dip-feed their way to the northern

end where they would disappear over the palm trees back out to sea. The largest daily count was 19 on 27th. It is probable that much higher numbers were passing through at the time of the survey, but time prevented a protracted count. [*COMMENT by WRPB. White-winged Tern *C. leucopterus* is much more likely here]

Greater Crested Tern *Thalasseus bergii*.

Noted daily either in small flocks of up to four or as singles flying past the coastline at Point Eclipse. Adult and juvenile plumaged birds were present. The largest concentration was nine at the low tide tern roosts at Point Marianne. Cochrane (1992) reported a breeding colony on an offshore coral islet, in Oct'91.

Arctic Tern *Sterna paradisaea*

One "portlandica" was amongst the Black-naped Terns at roost on Point Marianne on 27th and three adults in non-breeding plumage were watched feeding in the lagoon on the same day. A single non-breeding adult was roosting on the disused pier opposite the plantation church on 28th. This species appears to have not been recorded from the Chagos Archipelago, though the area is within its trans-world migration route.

Black-naped Tern *Sterna sumatrana*

This species was the most numerous tern seen throughout the observation period, though it is nowhere near as widespread as the White Tern around the island. The largest concentration was 114 roosting together on the low tide sands of Point Marianne on 27th.

Little Tern *Sterna albifrons*

Particular care was made when making field notes on this species, especially the extent of black on the outer primaries, in view of comments by W.R.P. Bourne (in Howells 1982), referring to the possibility of Saunders's Tern occurring in the area. Field notes were not particularly difficult to take, since the birds were roosting in numbers of up to 56 at every low-tide count at Point Marianne. The roosting flocks allowed an approach down to 15m, when flushed they would fly for 20m and then resume preening and roosting. The black was restricted to the outer primaries which precludes Saunders's Tern *Sterna albifrons saundersi*. Sub-specific distribution of Little Terns suggests these birds were either the nominate or *innominata* which are indistinguishable in the field (Harrison 1983).

Brown Noddy *Anous stolidus*

Seen daily all around the island in flocks of up to ten, it appeared particularly fond of roosting on the disused pier near the plantation church.

Lesser Noddy *Anous tenuirostris*

A single was noted flying East to West on the morning of 27th past Eclipse Point.

White Tern *Gygis alba*

The most widespread of the seabirds noted on Diego Garcia. This species can be viewed anywhere around the island though appears most numerous around the accommodation at Point Eclipse. Seen roosting in the trees at night in the brightly lit accommodation area, at least 30 being counted in a single tree, on 26th.

Indian Barred Ground-dove *Geopelia striata*

Introduced from the Seychelles in 1960 (Lousta-Lalanne 1962), this species appears to be steadily increasing. Reported as widespread from Eclipse Point to

Barton Point in 1982 (Howells 1982) it is now found in healthy numbers all around the island. Flocks of up to 20 were not uncommon around the accommodation, and another flock of 16 was noted at the plantation church.

Madagascar Turtle Dove *Streptopelia picturata*

This species appears to be holding its own on Diego Garcia. Common around the plantation church area where a flock of 12 were seen on 27th and 28th. Ten were counted around the accommodation on 28 March.

Indian Mynah *Acridotheres tristis*

Very common; its status appears not to have changed over the last 15 years.

Golden-crested Mynah *Ampeliceps coronatus*

This species has presumably been recently introduced to Diego Garcia. Two individuals were noted from different parts of the island, amongst flocks of the former species on 26th.

Madagascar Fody *Foudia madagascariensis*

Very common especially around the accommodation, though flocks were encountered in all areas surveyed. The majority noted were juveniles, suggesting breeding had recently completed. It would be extremely difficult to assess whether this species or Indian Mynah is the commonest passerine occurring on Diego Garcia.

CONCLUSION.

Based on this recent set of observations, it is evident that the status of certain species on Diego Garcia has altered in the period since Howell's survey in 1981/82.

It is therefore recommended that a comprehensive survey of the islands' breeding birds, including the three offshore islets, be carried out at the earliest opportunity. This would provide an accurate baseline upon which future surveys could be compared, and fluctuations in populations assessed. Preliminary studies of the migratory populations, particularly the transitory wader species, are recommended. The survey should include ringing studies, so that migration patterns, moult strategies and the sub-species involved could be investigated.

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SHORT NOTES

"Nomads in the night"

- landbird observations in the Skaggerak 17-19 January 1996
by Julian Bell*

* Note by Editor. The author is a hydrographic surveyor, who has been involved in various activities from aircraft (RAF) recovery, pipelaying and other construction work, in the North Sea and elsewhere. He regularly contributes observations to the North Sea Bird Club. These observations were made from SV *Geomaster* during seabed mapping operations in the Skaggerak.

It was mid-January off the coast of southern Norway, about twelve miles south of Kristiansand, and I was hardly expecting any signs of migration as I stepped out onto the misty night onto the deck to begin some oceanographic measurements. It came as some surprise therefore, when I heard the strident call of a lone Redwing. I had almost dismissed it as one of the many squeaks and noises made by the rigging when it was joined by more, and by then more.

Peering into the blackness above revealed no signs of life as I listened to the familiar "chack-chack" of the occasional Fieldfare among them. Staring out into the small areas of light made by the deck lights I made out the shapes of a few thrushes on the edge of the gloom. Whilst waiting for the measurements to be completed I watched as a compact flock of twenty or so urgently calling Redwings came flying over the large deck at head height, a stirring sight as I stood alone in the now drizzling gloom. It was hard to tell quite which direction these nocturnal migrants were travelling - some of them appeared to be circling the vessel, others heading purposefully on their various ways, no doubt confused by the thick cloud. I estimated many hundreds had passed during the calm murk of the night. The date was 17 January, and the weather was overcast, with wind SE 4-5.

Come daybreak of the following day, there were none to be seen or heard and I pondered where they had been going, northwards to Norway, or south to potentially warmer climes? Were they returning to Norway as it warmed up after a cold spell to gain access to food supplies that had lain under snow cover during the preceding weeks, or possibly heading back early to get an early start in time for spring? Maybe it was part of a movement to some other place, led astray by the weather or perhaps it was a more random move in their ceaseless quest for nourishment, something that typifies the nomadic winter lifestyles of these thrushes. Although they breed commonly in Norway it seemed surprising that they would be taken such a huge risk - their very survival indeed - on the somewhat inhospitable winter climate there. Wherever they were heading, some great driving force was pushing them on.

The following night (18th) I went on deck several times, for the sole purpose of checking for the presence of more thrushes on the move. I was amply rewarded. From about 2000, many hundreds, possibly thousands poured past in the blackness. Many flew past very close to the ship, attracted by the lights, but soon readjusted their courses and continued on, filling the night sky with their calls. There were other species with them, as was proved by a Greenfinch dropping out of the blackness to land on a deck light for a few minutes, before rejoining the passing throng. Once again their direction of travel was hard to ascertain but it seemed to be generally northwards. By dawn the cloud had been thinned a little by a freshening SE'ly, and it

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was relatively easy to determine their direction of travel - approximately north. They were heading for Norway after all! They flew low, taking advantage of the slightly reduced wind speeds nearer the sea. Early morning came and still they passed.

The SE wind strengthened steadily and come daylight the sea surrounding the vessel was seen to be a moving carpet of Redwing and Fieldfare, their flocks less compact than during the night, their flight low and direct. Oddly disturbing was their almost purposeful silence. The dim greyness of the day seemed intensified by the flat reflective sea, its slow well mirroring the gently swirling mists through which a few auks sped on their way to fishing grounds known only to them. Far from being depressing, the atmosphere the dullness of the day created was alive with mystery - and yet so very familiar. It was easy to imagine this as some autumn day back home on the NE east coast of England, and I was struck with a pang of nostalgia and home sickness. However, by midday this passage had slowed almost to a stop and I gave up watching and went to my bunk.

I awoke to a strong SW gale, the biting wind driving squalls past us with an icy chill. The boat had been called upon to recover a ditched helicopter and I went on deck for an altogether different reason that night. Incredibly, the Puma had been afloat for almost a day, despite worsening seas. As we neared the stricken aircraft, now lying capsized and thankfully empty, my searchlight probed the darkness. Incredibly there were still birds attempting to fly NW into the storm. I found it heart-rending to see them making pathetically little headway as they struggled forward, hindered by the spray now being whipped up from the sea. Every so often one of the thrushes would flutter frantically and silently past only feet away, almost landing on the deck, or at least finding shelter briefly in the lee of the ship. Sensing their desperation I silently begged the windblown travellers to please land on the ship, to rest and be fed, I'd look after them I vowed - but to no avail. These birds had a destination and they would reach it or die trying. Occasional gulls soared past with apparent ease in the night, seeming almost to mock the landbirds - terrible struggle. One of them even stopped to inspect the inflatable liferaft from the helicopter.

It was dreadful to think about how many of these thrushes must have perished in the icy seas on their battle westwards against the elements. How incredible must their motive have been to force them out into such appalling conditions on what were probably empty stomachs? The fight for survival seemed so unjust.

Julian Bell, Nordhagen 57, 5223 Haukeland, Norway.

McCormick's Skua *Stercorarius maccormicki* off west Scotland,

14 May 1994

by First Officer (SE) (Comms) W.F. Curtis, RFA.

RFA RESOURCE was sailing northward at 2105 BST, some 11nm SW of Rinn Point, Islay, on 14 May 1994. The weather was good overall, with visibility in excess of 25nm; the wind had dropped from easterly f6 to f2, during the course of the day, resulting in little sea, but a long, low swell. Birds in this area were few: Gannets, auks and Manx Shearwaters all having been seen in the previous 30 mins. At 2015, a party of seven Gannets were seen fishing about 0.5nm away, and fine to starboard. Whilst watching these, the bird in question lifted low out of the trough behind them, coming directly towards the ship. First appearance, head on, was of a bird smaller than the Gannets, about Herring Gull size, with head and all visible body very pale to white; wings dark. The bird then lifted and banked along a trough revealing it to be a "bonxie", and from the features now more apparent, to be a

McCormick's Skua. The bird continued towards the ship, passed down the starboard side at about 80-100yds, as far as the stern (500ft aft of the bridge where I was standing), swung round and flew back along the starboard side down to 30yds, before passing under the bows (140ft away) and disappearing away to port (westerly). The following are extracts of notes taken immediately afterwards:

"General impressions.

Initially, of a large-bodied skua with broad, but not particularly long, wings. Size would be about Herring Gull (body), but wings and tail noticeably shorter. Wings broad-based, but more pointed than Great Skua *Catharacta skua* - tail had noticeable projections of the central feathers, perhaps as much as 1/6 to 1/8 of length. Head smallish with slim bill, but particularly "knob-tipped". Head, throat, neck, upper saddle, chest, belly and vent all very pale; wings, saddle, tail and rump all very dark. Conspicuous white flashes along bases of primaries, both above and below.

Plumage details.

Head. Smallish for size of bird - gave impression of being flatter than Great Skua (two were seen near Rathlin Island at 1600). Colour very pale - creamy white, although towards the rear of the head a greyish/pink tinge was discernable.

Neck. Similar in colour to the rear of the head, but nape was almost pure white; lower neck - as upper, this hue extending onto the upper saddle.

Saddle. Area immediately adjacent to the neck very pale greyish, with a pink/mauve hue. Rest of saddle dark, cold blackish/brown, with a few pale feathers as far as mid-back.

Rump/tail. Uniform dark blackish/brown - no pale feathers noted. Central tail feathers projecting noticeably - distinctly more so than in the Great Skuas seen earlier.

Underparts. From chin to and including vent - all very pale creamy-grey, almost uniform, though centre of belly probably paler than flanks. Flanks (and rest of underparts) contrasting greatly with underwings.

Undertail. Dark blackish/brown - as uppertail.

Wings. Broad at base, relatively broad in "hand", but primaries more pointed than Great Skua. Dark blackish/brown both above and below - uniform. Distinct white flashes along base of primaries both above and below, but with pale area extending along the underwing coverts.

Bill. Slim. (slimmer than Great Skua), though thought to be as long - distinctly "blob-tipped" (a feature not noted in Great Skua). Greyish basally, shading noticeably to greyish/blue.

Eye. Dark - very distinct against pale head.

Feet/legs. Feet large, but not proportionately so. Bluish/grey. Seen to carry a metal ring on the left leg."

COMMENT. The area of this observation is remarkably close to where, on 17 July 1977, Keith Verrall (1988) saw an unusually pale skua, which he thought may have been a *C. maccormicki*, and there have been a number of other reports of old and new records off NW Europe recently (Bourne & Curtis 1994, Bourne & Lee 1994, Paterson 1994). WRPB

References.

- Bourne, W.R.P and Curtis, W.F. 1994. Bonxies, barnacles and bleached blondes. *British Birds* 87: 289-298.
Bourne W.R.P., & Lee D.S. 1994. The first record of McCormick's Skua for Europe and the Northern Hemisphere. *Sea Swallow* 43: 74-76.
Paterson A.M. 1994and yet further reports from Malaga, southern Spain. *Sea Swallow* 43: 77-78.
Verrall K. 1988. Occurrence of a large petrel, a pale Great Skua and a large tern off Islay. *Sea Swallow* 31: 49-51.

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Audouin's Gull *Larus audouinii* off the Isle of Wight, English Channel,
14 August 1995- First record for the UK?
by First Officer (SE) (Comms) W.F. Curtis, RFA.

Position. 50°32'N 01°22'W (2.75nm SSW of St. Catherine's Light, I.O.W.)
Date. 14 August 1995 Time. 0748-50.

General background. I was aboard RFA *Olha*, on passage from Gibraltar to Portsmouth. The voyage had been rather devoid of birds, apart from small numbers of Cory's Shearwaters *Calonectris diomedea* off Iberia, across the Bay of Biscay, and off Ushant (five am. on 13th). 19 Grey Phalaropes *Phalaropus fulicarius* were seen on 12 Aug, and a single Great Shearwater *Puffinus gravis* near Ushant on 13th. The excitement of the voyage had been two Audouin's Gulls some 12nm off Cape Finnisterre (43°N 10°W approx) on 12th, as there are few (if any?) records from that area.

On 14th, I was on the monkey island towards the end of my usual one-hour morning watch, which had been quiet - some 20 Herring Gulls *Larus argentatus* were with the ship, plus 12 Black-headed Gulls *L. ridibundus*, and the occasional Common Gull *L. canus*. Small numbers of Gannets *Morus bassanus* were fishing in the vicinity. We were steaming easterly along the south coast of the Isle of Wight, adjusting speed to reach the Nab pilots at 0940. Visibility was excellent.

Observation. At 0748 I was shocked to see an adult (summer plumage) Audouin's Gull float past the ship at about 50 feet (my height of eye was 60 ft above sea-level). Identification was immediate, owing to dark red, drooping bill; dark eye; sloping forehead; pearl/grey upperwings and mantle with dark outer primaries; white tail; all white underparts except outer primaries which were as upper; dark legs and feet. All these features were noted with the naked eye. The bird was observed for about two minutes through 10 x 56 binoculars, at distances between 50 and 350 yards. Notes were scribbled, from which the following is a sanitized version.

Detailed description.

All comparisons are with the Herring Gull. Individual was slightly smaller, slimmer with relatively long but thin/narrow wings. Flight more buoyant.

Head. All white with longish, drooping forehead, giving a flatter look.

Neck. White.

Nape. White, but shading to very pale diffuse pearl/grey nearest to the mantle.

Mantle. Pearl/grey; slightly paler than upperwings.

Upperwings. Pearl/grey with white trailing edge to inner primaries and all secondaries. Outer primaries black, forming distinct feature. The outer four primaries were black over all length; next two black for the distal third; the next four pearl/grey. All secondaries pearl/grey. Of the outer primaries, the outer had no white tip but a small, easily seen, white spot near tip (one inch in?); the next all black; next two also small white tips, not particularly conspicuous; next two also small white tips, then the inner four white tips.. All secondaries had white tips thus, with the inner four primaries, forming, a white (fairly narrow) trailing edge to the wing. The whole of the upperwing was uniformly pearl/grey, except as above, and a paler narrow area on the outer primary coverts, which was whitish rather than greyish.

Rump. White, but diffuse, pale pearly grey area nearest to mantle. (as nape).

Tail. White.

Upperparts. White, except primaries which were almost identical to the upper, but white tips perhaps a little easier to see.

Eye. At distance appeared dark, but at close range, orbital ring, red; iris deep brown.

Bill. Longish, and looking rather slender; deep red on proximal half, then blackish (very dark) band and small, tip being yellowish/horn.

Legs. At distance, dark, but olive/green (dark) at close range.

There was no sign of moult of the primaries, though none of the birds seen in the previous week showed any sign of moult either. There was some wear to the white tips of the primaries, as these were nowhere as obvious as those seen on individuals in June and July, at Sardinia.

COMMENT by MBC. This record is now being considered by the British Birds Rarities Committee (BBRC), as the first record of this species in UK waters. The description is reproduced here verbatim, as an example to members of the high degree of detail required before such records can be accepted by the proper authorities. But identification of this species is relatively easy, and should pose few problems to those with a sharp eye for detail - and Bill Curtis has unrivalled experience of seabird observations, acquired over many years at sea. Audouin's Gulls are distinctive, and the first one I saw, (in 1965, off Simi Island, in the Aegean), was immediately recognisable from a considerable distance. At that time, this species was confined to a few localised areas in the Mediterranean, including Sardinia, but the population has recently increased dramatically, and expanded westwards, with major colonies on the Charafarinias Is. (off Melilla, Moroccan coast), and in the Ebro Delta (Spain) - see Garcia (1989) - "Where do Audouin's Gulls feed?", *Sea Swallow* 38: 56-59. Garcia reported that it was abundant in the Straits of Gibraltar passing westward throughout July, and calculated that at least 10,000 birds were involved in this migration, but it was unclear where they went. RNBWS members were encouraged to look out for them wintering off west Africa, and along the Atlantic coast northwards. So, this record comes as no great surprise to those who know this species, (though the month of August seems to me unusual - possibly an effect of the remarkably hot summer?) and I predict there will soon be others. Do keep a sharp look-out for Audouin's Gulls in the eastern Atlantic, and send in your records, with adequate identification details.

Postscript. A sub-adult Audouin's Gull was also observed near Boulogne, Pas-de-Calais, throughout the period 15 June to 28 July 1995 - see W. (Ted) Hoogendoorn, 1995, and there is also a ringing recovery from NW Spain (Oro & Martinez 1994).

References.

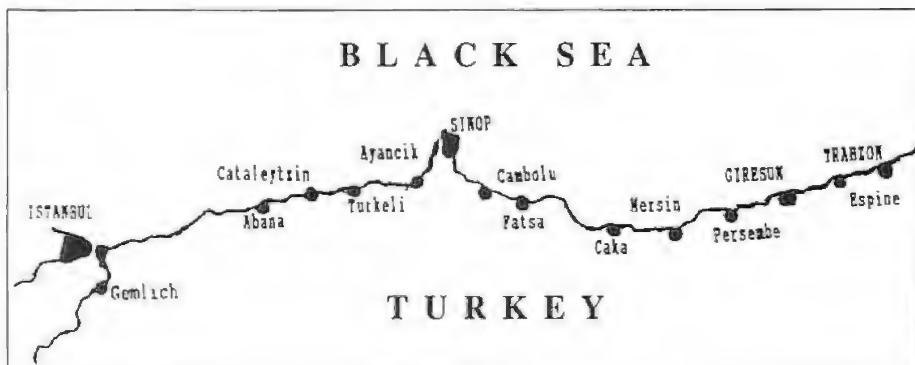
Hoogendoorn, W. 1995. The Audouin's Gull in Northern France *Birding World* 8: 263-5.

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Observations of Seabirds on the Black Sea Coast in Turkey
9-13 May 1995
by Stephen Hales



Species List.

Red-throated Diver *Gavia stellata*. Two at Abana on 9 May, then seven together along the shoreline at Cataleytzin later the same day; three seen close in at Sinop on 10th. All were in full summer plumage and some were displaying and calling.

Black-throated Diver *Gavia arctica*. Seven at Cataleytzin on 9 May, just offshore and displaying, then later that day two at Turkeli, and ten together at Ayancik; 12 together off the headland at Sinop on 10th; two at Cambolu on May 11th and one at Espine on 13th. Many of these were in summer plumage.

Black-necked Grebe *Podiceps nigricollis*. Two together were noted at Sinop on 10 May, and two on 13th; a singleton at Persembe on 13th. All were in summer plumage.

Great Cormorant *Phalacrocorax carbo*. Fairly well distributed along the coastline; the largest gatherings were at Sinop, Fatsa, Caka and Giresun. A maximum count of 27 was made at Sinop on 10 May.

Shag *Phalacrocorax aristotelis*. Seen in smaller numbers along the coastline; a maximum count of six together near Mersin on 13 May.

Mediterranean Gull *Larus melanocephalus*. Only two, both in second winter, were seen on the Black Sea coast at Sinop on 10 May. Of interest at Kusadasi on the west coast on 14th, over 150 were roosting off the shoreline; only about 10% of these were adults.

Black-headed Gull *Larus ridibundus*. Five flying east at Sinop on 10 May and 15 flying east at Trabzon on 13th; also one on the water just outside the harbour swimming amongst unidentified cetaceans. All were immatures.

Herring Gull *Larus argentatus*. A count was made of these which featured right along the coastline. Large numbers of adults were seen at Caka and Adazi, in particular, with many smaller groups of mixed aged birds often loafing in fields. Roof-top breeding was proved at Giresun, and strongly suspected in other coastal towns.

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Sandwich Tern *Sterna sandvicensis*. A single was seen at Gemlich on 5 May and then four birds flew overhead at Sinop Harbour on 10th; two flew east at Fatsa on 13th. These were the only records.

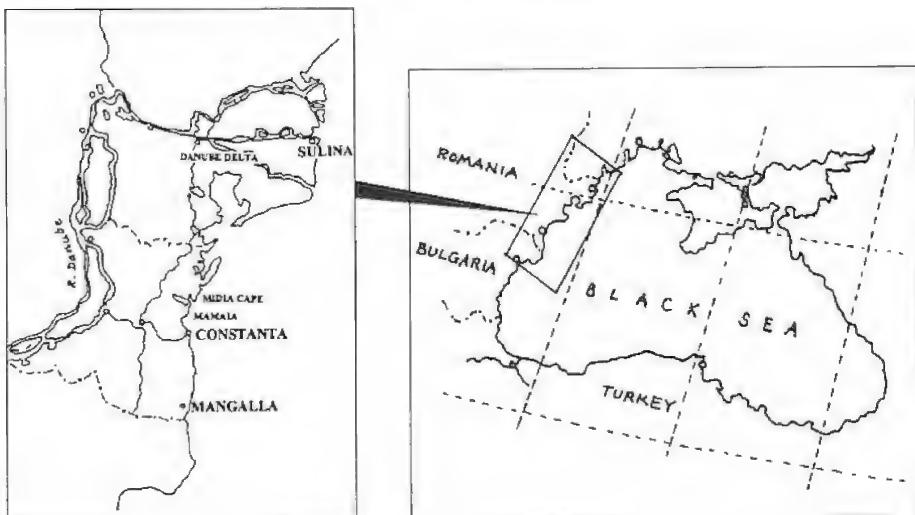
Landbirds. Also of interest were the good numbers of Red-backed Shrike *Lanius collurio* and Lesser Grey Shrike *Lanius minor* seen during the trip. Large numbers of Red-footed Falcons *Falco vespertinus* were also recorded, often in sizeable, single-sexed flocks, perched on the roadside wires. A large movement of many species of birds of prey was recorded at Sinop headland, all heading north, during the two days spent there, possibly heading due north to Crimea Peninsula? In addition to many other sightings, two pairs of breeding Wrynecks *Jynx torquilla* were found in woodland near Geredre.

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Seabirds on the Romanian Black Sea Coast. by Gabriel Banica

This short note gives an abstract of the seabirds I have seen on the Romanian Black Sea Coast in 1994. All observations are made from ashore, from 12 different places - Vama Veche, 2 Mai, Mangalia, Saturn, Neptun, Costinesti, Eforie Sud, Eforie Nord, Agigea, Constanta, Mamaia and Vadu. In total there were 41 days of observations, made in all seasons. Results are presented in the following table:

Species	Months of the year 1994												Max. No. Counted
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Arctic Loon <i>Gavia arctica</i>					x								One at Constanta 15 Apr
Great Cormorant <i>Phalacrocorax carbo sinensis</i>	x	x	x	x	x	x	x	x	x	x	x	x	251 at Vama Veche 26 Jan
Pygmy Cormorant <i>Phalacrocorax (microcarbo) pygmaeus</i>	x								x				four at Mamaia 27 Sep
Common Gull <i>Larus canus</i>	x	x								x	x		4,000 at Constanta 15 Feb
Lesser Black-back <i>Larus fuscus</i>				x		x		x					30 at Constanta 12 Apr
Yellow-legged Gull <i>Larus argentatus cachinnans</i>	x	x	x	x	x	x	x	x	x	x	x	x	2,000 at Vadu 21 Sep
Mediterranean Gull <i>Larus melanoleucus</i>		x		x			x				x		43 at Constanta 5 May
Black-headed Gull <i>Larus ridibundus</i>	x	x	x	x			x	x	x	x	x	x	1,870 at Constanta 14 Nov
Little Gull <i>Larus minutus</i>		x		x			x	x		x			123 at Constanta 2 Nov
Black-legged Kittiwake <i>Rissa tridactyla</i>	x												one at Constanta 24 Jan
White-winged Tern <i>Chlidonias leucopterus</i>					x								18 at Constanta 2 May
Black Tern <i>Chlidonias niger</i>				x					x				six at Constanta 2 May
Gull-billed Tern <i>Celorchilus nilotica</i>					x					x			three at Constanta 24 July
Common Tern <i>Sterna hirundo</i>			x			x	x						ten at Mamaia 6 May
Sandwich Tern <i>Sterna sandvicensis</i>					x			x					two at Constanta 24 July



COMMENT. The Black-legged Kittiwake on 24 Jan was the first one I had seen; it is very rare in Romania, and one has to be very lucky to see this gull here. The other species are common for the western Black Sea.

Of course there are many other species to be seen on the sea shore, but for the moment I have shown only those seabirds mentioned in the RNBWS Checklist of seabirds by Dr. W.R.P. Bourne and Cdr M.B. Casement RN (1993) (*Sea Swallow* 42: 16-27)

**The Levantine Shearwater *Puffinus yelkouan*
on the Romanian Black Sea Coast
by Gabriel Banica**

As far as seabirds are concerned, the Black Sea is a poor sea, and few species live there. For Romania, the most rare species of all seabirds is the Levantine (Yelkouan) Shearwater, the only representative of the Procellariiformes order in my country.

This species has been seen only 31 times in the Romanian seawaters in the last 100 years - as can be seen from the table below. We notice that 14 of these observations were made in August, nine in July, three in May, two in March, and once only in the months of April, June and September. We must also mention that only one of these were made inland (two birds on 19 May 1994); the remainder were made over the sea.

TABLE OF OBSERVATIONS

No.	Date	Place	No. of birds counted	References
1.	01.04.??	Constanta	1	Bianchi, 1913
2.	March 1910	Mamaia	4	Dombrowski, 1912
3.	March 1923	Cardon (Danube delta)	15-20	Lintia, 1955
4.	03.03.1923	Tuzla Cape	x	Spiess, 1923
5.	14.08.1949	Constanta	x	Paschovschi, 1971
6.	Sept 1959	Mamaia	x	Homei (unpublished)
7.	16.08.1961	Ciotic (Danube delta)	2	Mandru & Kiss, 1971
8.	15.08.1961	Constanta	1	Dornbusch & Grempe, 1964
9.	15.08.1961	Mamaia	1	Dornbusch & Grempe, 1964
10.	26.08.1951	Sulina (Danube delta)	x	Paschovschi, 1971
11.	24.08.1965	Constanta	x	Munteanu, 1970
12.	04.07.1968	Sacalin (Danube delta)	1	Talpeanu, 1968
13.	12.08.1968	Sacalin (Danube delta)	1	Kiss, 1971
14.	29.08.1968	Agigea	x	Impe, 1968, 1969
15.	24.08.1968	Sacalin (Danube delta)	1	Kiss, 1971
16.	14.08.1969	Sacalin (Danube delta)	1	Kiss, 1973
17.	August'70	Sacalin (Danube delta)	1	Kiss, 1973
18.	27.06.1971	Sacalin (Danube delta)	1	Kiss, 1973
19.	28.07.1971	Sacalin (Danube delta)	3	Kiss, 1973
20.	29.07.1971	Sacalin (Danube delta)	x	Kiss, 1973
21.	30.07.1971	Sacalin (Danube delta)	1	Kiss, 1973
22.	29.08.1971	Sacalin (Danube delta)	1	Kiss, 1973
23.	17.07.1973	Sacalin (Danube delta)	x	Stanescu, 1973
24-26.	27 July'74	Midia Cape-Chituc-Gura Portitei	20,000	Impe, 1975.
27.	20.07.1980	Sacalin (Danube delta)	1,000	Kiss, 1985
28.	25.08.1988	Constanta	1	Banica, 1990, 1991
29.	08.05.1994	Chituc	1	Weber, 1995
30.	19.05.1994	Razelm Lagoon	2	Condac, 1994
31.	18.08.1995	Constanta	1	Banica (unpublished)

The birds were usually seen as ones or twos, flying close to the water, near the coast. But sometimes they passed in large numbers, as on 27 July 1974, when about 20,000 birds were seen between Midia Cape (North Constanta) and Gura Portitei (South Danube Delta). About 1,000 birds were also seen on 20 July 1980, flying near Sahalin Island (east Sfintu Gheorghe Village, Danube Delta).

We think that the Levantine Shearwater has an irregular passage near the Romanian shore, especially in late summer (July-August), when the birds are spreading from their breeding quarters, following probably the movement of the fishes, their favourite food.

Unfortunately, we have no information from the open sea, all observations being made from the coast. I hope that birdwatchers at sea will find interest from this short note, and perhaps, in the future will find out, together, the hidden waterways of this fascinating bird.

The *Sea Empress* Oil Pollution Incident
by Dr W.R.P.Bourne

It is notable that despite massive petroleum development around British coasts the worst oil pollution continues to be caused by accidents with passing tankers. Several of them seem avoidable, and important lessons should be learned.

In March 1967, the first loss of a supertanker in British waters, when the 112,000 tonne *Torrey Canyon* with a cargo of Kuwait crude oil was wrecked on The Smalls, was caused by taking a short cut with inadequate care inside the Isles of Scilly to catch the tide at Milford Haven in SW Wales. It proved impossible to refloat her or dispose of her cargo, which formed a persistent if not very toxic "chocolate mousse", and over the next two months it came ashore around SW Britain and Brittany, causing vast disturbance leading to dramatic government action but surprisingly little long-term damage. The lesson appeared to have been learnt when, in October 1978, the 58,000 tonne *Christos Bitas* grounded on the Hats and Barrels in the entrance to the Irish Sea and was refloated, unloaded at sea, and eventually sunk west of Ireland 19 days later with comparatively little damage to the coast and wildlife.

While chronic pollution from tank-washing persisted at sea, and there were periodic minor accidents, for a long time there were then no more major incidents. Unfortunately it became clear that standards were slipping again when, early in 1993, the 85,000 tonne *Braer* with a cargo of North Sea crude oil sailed west through the Fair Isle Channel in difficulties during a gale, lost her engine, and went ashore on SW Shetland before a tug could be found. This time the oil proved both more volatile and easily dispersed, notably by another gale, but also more toxic, so it killed about half the local bird population while some fisheries are still closed. An inquiry into the incident was conducted by Lord Donaldson who produced 103 recommendations, notably that more effective tugs should be made permanently available.

Meanwhile, Milford Haven oil terminal had been privatised with subsequent cost-cutting exercises, including a failure to renew obsolete port radar, and a reduction in both the pilots and the distance offshore at which they met incoming vessels. In October 1995, the *Borga* grounded in the harbour entrance, but fortunately only the first of her two hulls was penetrated and she was refloated safely. Then, on 15 February 1996, the 147,000 tonne *Sea Empress* with another cargo of North Sea crude oil tried to enter the haven with a falling flood tide, and also grounded, and the powerful tug supposed to be available was found to have gone walkabout. Two days later, before much oil had been lost, she temporarily refloated with a gale in the offing, but the chance to move her was apparently missed while the authorities debated whether to take her into the harbour or out to sea. By the time she was refloated again four days later, half her cargo was loose.

Once more, North Sea oil was found to disperse comparatively easily, and by the time my wife and I examined the most heavily polluted shore in Carmarthen Bay six weeks later little could be seen, and some shellfish still survived. On the other hand, the local fisheries have once more been closed, and it may be wondered how far the dissolved oil may have drifted up the Irish Sea with the residual coastal current. According to *BTO News* 203: 2 some 4,596 birds were found dead and 2,105 live ones rescued, many of which died. The victims included at least 4,656 Common Scoter *Melanitta nigra* wintering in Carmarthen Bay, 1,376 Common Guillemots *Uria aalge* and 77 divers *Gavia* sp. It is uncertain how many more birds were lost out at sea, though as usual it is being speculated it may have been ten times as many. The gaps are apparently not noticeable.

While it is difficult for anyone who was not there to be sure of the circumstances,

certain conclusions, which have not been widely remarked on, can be drawn from these incidents. It is questionable whether the *Braer*, which was apparently already in difficulties, should have sailed through the Fair Isle Channel into a gale, presumably in an attempt to keep on schedule, instead sheltering in the lee of Shetland, where she should have been quite safe. Similarly, in addition to the need to improve the availability of tugs and port procedures, it may be asked whether like the *Torrey Canyon* the *Sea Empress* may have been in too much hurry to catch one of the strongest tides of the year at Milford Haven. It certainly appears that the best chance to avert disaster may have been lost on the second day, while it was argued whether it was worse to have her oil loose in Milford Haven or out at sea.

This is not the first time this problem has arisen. Once in the late 1970s a leaking tanker was towed all the way up the English Channel and across the North Sea in search of a port prepared to receive her. Since nobody wants such ships if they have to pay for the consequences, surely governments should assume responsibility for ordering that they be accepted and paying the cost? It also seems time that the major oil ports in particular were compelled to make more provision for dealing with such problems, possibly by preparing locks where damaged ships can kept until their leaks are repaired. The present state of affairs is not good enough.

Dr W.R.P. Bourne, Department of Zoology, Aberdeen University, Aberdeen AB9 2TN, Scotland.

Common Diving-petrel with missing leg.

Recent correspondence (between Jim Stonehouse, Joe Sultana, John Borg and Bernard Zonfrillo) in *British Birds* 89: 185-187 (April 1996) highlighted the incidence of Storm-petrels, Shearwaters and other seabirds with missing feet and deformed toes. Explanations varied from damage by nylon nets and lines, disease by parasitic marine worms, or attack from predatory fish or other birds. The photograph on page 185 showed a Cory's Shearwater *Calonectris diomedea*, lacking a foot and part of the tarsus, Malta, July 1985 (Joe Sultana).

A very similar example is shown in the photograph, taken aboard RFA *Gold Rover* off Grytviken, South Georgia on 18 Nov'95, of a Common Diving-petrel *Pelecanoides urinatrix*, with its left leg missing.



Common Diving-petrel *Pelecanoides urinatrix*, South Georgia 18 Nov'95
Photo: CPO (Comms) G.H. Walton RFA.

Whatever the cause of such deformities to seabirds, it is clearly not confined to the northern hemisphere.

Michael Casement (Editor).

Bird Observations in the Gulf of Suez.
by Captain D.M. Simpson MN

From 27 June to 11 September 1995, I was Master of MV *Pacific Shield*, stationed on Egypt's "October Oilfield", in the Gulf of Suez. *Pacific Shield* is a 'platform maintenance vessel' and serves as the Field standby/rescue, fire-fighting and anti-oil pollution vessel. I had worked in the Gulf of Suez in 1985, on MV "Big Orange XII", and this account may be considered as a supplement to my earlier observations (1 Jan to 19 Apr'85 - see *Sea Swallow* 35: 54-55)

The weather during this period was very hot and dry, with almost continuous strong winds (SW to NW). Sand in the air caused poor visibility. October Field is about 75nm south of Suez, and just east of the main shipping line, only a few miles off the coast of the Sinai Peninsular (Marsden Square 105).

Often we would call in to the small Sinai ports of Abu Al Rudeis and Abu Al Zenima Bay. On these occasions I usually contrived to get ashore for an hour or two's birdwatching in the nearby hills. Sinai presents an incredibly barren, lunar-like landscape, and is insufferably hot during the day, at this time of the year. I cannot but sympathise with Moses and the "Children of Israel", who were condemned to wander this inhospitable desert for 40 years before entering the "Promised Land".

Nothing grows here except a little coarse grass, and a small bush or shrub in the dry wadi beds. This plant bears red berries, and seems to attract both birds and insects. (I wonder is it "Tamarisk"?) On one occasion I came across one of these plants, measuring no more than 2ft by 3 ft, and found three Willow Warblers, a Woodchat Shrike and a Lesser Whitethroat taking shelter from the fierce sun, amongst the leaves and branches.

At sunset, the whole place, rocks, sand and sky takes on a gold-red hue, and it is easy to imagine oneself being on the planet Mars, rather than Earth - quite beautiful, in a way.

Check-list and birds seen

(U) = Uncertain (P) = Positive Sp. = Species of

1. Shearwater Sp. One bird 5/8, and singles on at least two other occasions during August. Very large stocky shearwaters. brown above, whitish below, including the underwings. It looked very much like Cory's Shearwater *Calonectris diomedea* - at sea, October Field.
2. White Stork *Ciconia ciconia*. (P) Single on 18/8 sighted flying/circling over October Field at 1600. 26/8. A large flock of over 1,000 birds soaring over the "Gospel Hills" at Abu al Zenima Bay. I think these had just taken flight, as I found one area of desert floor which was covered with their footprints. The flock moved southward along the coast, but I suspect did not go far before landing again. There are many large grasshopper-like insects about (perhaps locusts?). Probably these storks are feeding on them.
3. Shoveler *Anas clypeata*. (P). 1300 on 28/8. A small party of ten on the sea surface, closely packed. They took flight on close approach of the ship - in eclipse plumage.
4. Black-winged Stilt *Himantopus himantopus*. (P) On 23/8 a single circled

the vessel for a while, then finally landed on deck 1300-1800. Very long pink legs, white head, neck and underbody; black wings. Wind NW/28 kts. Visibility 5nm.

5. White-eyed Gull *Larus leucophthalmus*. (P) Seen throughout this period on October Field, but only in small numbers (max six at a time) - seems to be the only resident seabird here.
6. Herring Gull *Larus argentatus*. (P) The first two (one adult and one imm.) were sighted on October Field on 11/8. One or two more seen in Sept.
7. Swift Tern *Sterna bergii*. (P) Single at Abu Rudeis on 11/8. In the latter part of August, a party of ten or so frequented October Field.
8. Roseate Tern *Sterna dougallii*. (U) Two birds, loosely associated with the Swift Terns were smaller with long tail-streamers and dark bills.
9. Rock Dove *Columbia livia*. (P) Feral doves are common in Sinai towns. On 2/9 I encountered a Rock Dove on a rocky cliff in the Gospel Hills. It was typical of the Sinai form, lacking the white rump.
10. Palm Dove *Streptopelia senegalensis*. (P) Common in Rudeis and Zenima town gardens.
11. Hoopoe Lark *Alaemon alaudipes*. (P) 8/8. A pair observed on the desert floor at the outskirts of Abu Rudais.
12. Barn Swallow *Hirundo rustica*. (P) One appeared aboard ship on 8/8. October Field.
13. Great Grey Shrike *Lanius excubitor*. (P) 29/8. One observed in the crown of a small shrub. Gospel Hills.
14. Woodchat Shrike *Lanius senator* (P) Several seen in Aug and Sept in the Gospel Hills.
15. Red-backed Shrike *Lanius collurio*. (P) Several seen in the Gospel Hills, Aug and Sept.
16. Scrub Warbler *Scotocerca inquieta*. (U) 24/8 two small warblers, skulking in an agitated manner in small shrubs, appeared to be this species.
17. Lesser Whitethroat *Sylvia curruca*. (P) 30/8. Sheltering under a shrub, which also contained leaf warblers and a Woodchat Shrike.
18. Willow Warbler *Phylloscopus trochilus*. (U) From 30/8, until I left the area on 11/9, there were many small leaf warblers in the area around Al Zenima and Abu Rudeis. On 6/9 one appeared aboard ship in October Field. They had flesh-coloured legs, and generally showed some yellow on the throat/breast and undertail coverts. I believe they were all migrating Willow Warblers.
19. Collared Flycatcher *Ficedula albicollis*. (U) One (F), observed 2/9 in trees in the garden of the police station at Al Zenima. Confusable with the very similar female Pied Flycatcher.
20. Mourning Wheatear *Oenanthe lugens*. (P) Two (M + F) seen 22/8 on Rudeis football pitch. Also observed in the Gospel Hills 2/9.
21. White-crowned Black Wheatear *Oenanthe leucopygia*. (P) Resident in the Gospel Hills. One usually comes across it in barren rocky canyons. A lovely bird in grim surroundings!
22. Blackstart *Cercomela melanura*. (U). Another bird typical in this bleak desolate country, but I only caught a fleeting glimpse of it (19/8 in Gospel

Hills), so cannot claim it as confirmed.

23. Thrush Nightingale *Luscinia luscinia*. (P) 2/9 Gospel Hills. Found skulking in a hollow under a big rock in a wadi - apparently a tired migrant, in this very untypical habitat.

24. Sinai Rosefinch *Carpodacus synoicus*. (U) 2/9. In a rocky wadi I surprised three finches, at least one of which was largely pinkish red in colour. They flew off at speed before I could focus my glasses on them - almost certainly this species, which is endemic to Sinai, but I mark it (U) due to possible confusion with Trumpeter Finch, which also occurs here. I glimpsed "pink" finches in these hills on at least two other occasions.

25. Brown-necked Raven *Corvus ruficollis*. (P) Several sightings in the Rudeis/Zenima area.

26. Hoopoe *Upupa epops*. (P) Resident, and several sighted ashore. One landed aboard ship on 6/9 on October Field.

I left the area too early, just as the autumn migration was getting under way, or I'm sure the list would have been much longer. The polluted shoreline might explain the lack of wading species.

Captain D.M. Simpson MN. c/o 4 Ruswarp Lane, Whitby, N. Yorkshire YO21 1ND

NOTE by Editor. I spoke to Dave Simpson on 7 August, briefly in London, after spending the past six months birdwatching in Costa Rica. He has been recalled to further duty in the Fly River, PNG, from where we can expect further interesting reports.

MBC

**Unusual numbers of seabirds aboard in the Gulf of Papua.
(extract from Met. Log report.)**

The following report is extracted from the Met. Log of MV *Siratus* (Captain G.P. Donelly). Just prior to dawn on 11 Oct 1995, the vessel anchored, off the Kumul Terminal, Papua New Guinea in position 08.1°S 144.5°E - 50nm west of Commerson Island. During the morning, large numbers of birds landed on the ship and stayed throughout the day, and overnight. These were "black, or very dark and dull brown, in colour, and many of them had white heads. The wing-span of the majority was in the region of 50-60cms". The Chief Engineer estimated that during the morning watch of 23rd, at a conservative calculation of five birds per metre of pipeline or rail, over one thousand birds were resting aboard. Seven were found fouled with bunker-oil in a drip tray, but were cleaned with a very mild detergent and water, and finally fresh water. After a long "drying off" period, all seven were able to take flight. It was necessary to wear rubber gloves during this operation, to protect the hands from their 1.5" long beaks. Photographs were taken (but not forwarded - Ed).

Chief Engineer Dunn was of the opinion these were Sooty Terns. The local agent said that they were due to migrate (north?) very shortly, and would move from the ship only when the next one arrived.

During the evening of 24th, further birds began to land on the deck, in even greater numbers than before. When one of the complement walked along the deck, as part of their evening stroll, the birds became quite aggressive, and flew very close to his head - causing him to beat a hasty retreat. We estimated that there were over 20,000 birds on the deck, during this night. The possibility of going into the guano export trade is being considered!

The same pattern of behaviour continued until the ship's departure from Kumul, on the evening of 31 Oct - the birds began circling the ship at about 1730, and then landed on the fore part from 1800 approx. By about 2000, the deck would be covered by large numbers of these birds"

Comment by Editor. This is a remarkable record, and it is a great pity the photographs are not available to confirm identity. No mention of white underparts suggests noddy, rather than Sooty Terns. Dr W.R.P. Bourne writes: "While young Sooty Terns are also dark, their heads are not white - they would be mixed up with adults having white underparts, and they do not seem to come ashore to roost anyway. One would need more local knowledge to say what they were up to. If the 'white heads' were white crowns, they were probably noddies *Anous* sp, which do seem to come ashore to roost at night, and may have difficulty finding anywhere else there. Serventy, Serventy & Warham (1971) suggest Brown Noddies *Anous stolidus*, in particular, may move north in winter, and they may have been on the way home?"

Captain David Simpson comments: "These would certainly have been noddies, and most likely Brown Noddies, but Black Noddy *A. minutus* cannot be ruled out, as both species occur in this area, in large numbers. In the Gulf of Papua, I have often had small numbers of Brown Noddies land on board ship, but never anything like the huge numbers described above, which is most remarkable."

Reference

Serventy, D.L., Serventy, V. & Warham J. 1971. *The Handbook of Australian Seabirds*. Sydney.

MBC

REVIEWS

NEW LIGHT ON THE VOYAGE OF HMS HERALD

David, Andrew, 1995. *The Voyage of H.M.S. Herald to Australia and the South-west Pacific 1852-1861 under the command of Henry Mangles Denham*. The Miegunyah Press - Melbourne University Press, Carlton, Victoria 3053, Australia; European distributor, Gazelle Book Services Ltd, Falcon House, Queen Square, Lancaster. LA1 1RN, UK. Pp xxviii + 521, 11 charts, 8 maps, 48 plates, Aus \$69.95 or £39.99. ISBN 0 522 84390 5.

One of the more important episodes in marine exploration was the nine-year survey by HMS *Herald* of the approaches to Australia in the 1850s. Among many other things it resulted in the first published scientific descriptions of a number of birds, including the the Tristan Thrush *Nesocichla eremita* and Kermadec, Herald and Fiji Petrels *Pterodroma neglecta*, *P. heraldica* and *P. macgillivrayi*, the first two of which were collected by its naturalist, John Macgillivray. Unfortunately he then had a row with Captain Denham and was dropped out (ie, did he fall, or was he pushed?) in Sidney early in the proceedings. In consequence, nobody was left to report the important natural history observations during the voyage. until our long-standing member Andrew David included the more casual ones in this splendid account of a remarkable achievement. We are also dealing with MacGillivray's more important bird notes in more detail, elsewhere, starting with those for Tristan (*Bull. Brit. Orn. Cl.* 101: 247-256) and St. Paul (*Gerfaut* in press).

W.R.P.B.

LOCKLEY WRITES AGAIN

Lockley, Ronald, edited by Ann Mark, and illustrated by Doris Lockley. 1996. *Dear Islandman*. Gomer Press, Llandysul, Dyfed SA44 4BQ, Wales. Pp xv + 253, 4 plates, a map and numerous drawings. £8.95. ISBN 1 85902 296 0.

Ronald Lockley has probably documented his interesting life better than any other ornithologist, often several times over in unnaturally bright colours. One figure in it who has hitherto remained sketchy, however, is that of his artistic first wife Doris Shellard, who although ten years older bravely accompanied him to the Pembrokeshire offshore island of Skokholm, where she reared their daughter Ann. Following Do's death at 96, Ronald has now put together their correspondence during the year when he was preparing their island home, and it is has been ably edited by Ann to provide the first and freshest account of this famous enterprise. Among other things, it makes it clear that their initial object was not to watch and describe birds, though they are mentioned at intervals, but to exterminate the Coneys and replace them with Chinchilla Rabbits, at which they were conspicuously unsuccessful. It is a pity so few fail (and write about it) like this.

W.R.P.B.

WILLIAM MACGILLIVRAY

Ralph, Robert, 1993. *William MacGillivray*. HMSO, London (The Natural History Museum). Pp ix + 97, 32 plates, many illustrations. ISBN 0 310043 4. £25.

Ralph, Robert, (ed), 1996. *William MacGillivray - A Hebridean Naturalists's Journal* Acair. 7 James St, Stornoway, Isle of Lewis. Pp 167, 8 plates. ISBN 0 86152 022 6 (paperback) £14, or ISBN 0 86152 022 7 (hardback) £20.

John MacGillivray (previous review), and subject of another biography by Bob Ralph in *Arch. Nat. Hist.* 20:185-195, was the son of the greatest, but sadly most neglected, British

ornithologist of the first half of the last century, William MacGillivray. The latter was born illegitimately in Aberdeen, brought up in the Outer Hebrides, then returned to graduate in Aberdeen before working for a time in Edinburgh, where he became friends with Audubon and wrote the technical parts of the latter's bird descriptions before becoming Regius Professor of Natural History in his old university. He published, among other things, a five-volume *History of British Birds* containing pioneer studies of their anatomy and an early attempt to harmonise British and North American nomenclature. The curator of his collection has now finally done him justice in a short, clear biography and by editing one of two surviving volumes of his readable journals, describing the year in which he returned to the Hebrides for his 22nd birthday. Both volumes are illustrated with some of his handsome, but previously unpublished, bird paintings, in the style of Audubon.

W.R.P.B

STOP PRESS!

ALL AT SEA

Dando, M., Burchett, M (principal contributors) & Waller, G. (Editor). 1996. *SEALIFE - A Complete Guide to the Marine Environment*. Pica Press (an imprint of Helm Information Ltd.), The Banks, Mountfield, Nr. Robertsbridge, E. Sussex TN32 5JY. UK. Pp 504, 57 colour plates and numerous drawings and diagrams. ISBN 1-873403-26-7. £30.

Just as *Sea Swallow 45* goes to press, appears what many have long been waiting for - everything about the marine environment, within one cover.

Michael Burchett and Marc Dando have combined to produce a veritable encyclopedia of information about all aspects of the sea, with sections on Oceanography and Marine Biology; Marine Invertebrates; and Vertebrates, including fishes, marine reptiles, seabirds, and mammals. The impressive illustrations are by Marc Dando (wildlife) and Richard Hull (birds), and major contributions are from Geoffrey Waller and Colin McCarthy, both of the Zoology Department of the Natural History Museum, and Sara Heimlich-Boran, of the Sea Mammal Unit, British Antarctic Survey. Kevin Morgan is cited as Environmental Consultant. Nigel Redman, as Series Editor, has achieved a remarkable result, well up to the standard one has come to expect from the Christopher Helm "stable". It is similar in size (and weight) as Peter Harrison's *Seabirds an identification guide* (Croom Helm, 1983).

The seabird section, contributed by Iain Robertson, is a relatively small part of the whole - 33 pages and 19 colour plates. The information is beautifully presented, though the seabird specialist may find little new about birds here. But, more importantly, many birdwatchers' eyes will be opened to the wealth and variety of marine organisms, mammals and fishes, which share the same marine environment, and the complex inter-relationships between them are put into clear perspective. Excellent maps, inside front and rear covers, show those obscure islands and place names which regularly feature in ornithological literature, and are often difficult to find on most normal atlases.

There is one major disappointment: the section on observing and recording shows specimen forms for recording environmental and biological data, but nothing relevant for birds, nor where to send records of birds seen at sea. I could find no reference to RNBWS, or the unique recording forms devised and used by RNBWS for this purpose over the past 50 years. It would also have been nice to see some recognition of the data amassed by RNBWS members, from which Gerald Tuck produced the first distributional maps of seabirds for his pioneer work - his *Field Guide to Seabirds of Britain and the World* (Collins, 1978) - which have been so blatantly exploited, with scant recognition, by subsequent authors. A golden opportunity to put this right has been missed.

Sea Swallow 45

This is not the sort of book one packs for a brief seaside holiday, but for a world cruise, as a passenger with time to spare and to observe. It contains a mine of information, for frequent reference by mariners who travel the oceans for business or recreation, and will be essential reading for every serious student of the marine ecosystem, and by all concerned about the conservation of marine life. Every ship's library should have a copy.

M.B.C.

Tailpiece - "Nature in the Raw" - snake catches bird in mid-flight contributed by Captain D.M. Simpson MN

David Simpson has just spent the last six months, in semi-retirement in Coast Rica, where he has quickly become a key figure in the newly formed Birding Club of Costa Rica. The following appears in the Newsletter of the Birding Club of Costa Rica "*The Tico Tweeter*" Vol 2 No.5 (May 1996):

The following "most extraordinary occurrence I had ever seen in 30-odd years of birding" took place on the dry forest trail below the University of Peace at El Rodeo Wildlife Reserve on 16 April 1996: "At 1100 hours, whilst walking along a forest track, a Swainson's Thrush *Catharus ustulatus* flew across the track towards a tree on my left. (There were many of these thrushes passing through Costa Rica on northern migration at the time). This particular thrush seemed to come to an abrupt halt in mid-air and it started screaming loudly at the same time. It appeared to have impaled itself on a branch or shoot that was hanging down about 18" below the main branches.

However, when I focused my binoculars on the scene I was astonished to see that the 'shoot' was in fact the head of a green tree-snake. The rest of the snake's body was laid along a thin branch, and I estimated its total length to be 4 feet.

The snake was leaf-green above, with a paler yellowish belly. It had a spade-shaped head and was very slender, being no more than 1" thick at its maximum girth. The last 2 ft or more of its body was extremely slender and resembled a bull-whip.

I approached as close as possible to a position where the snake's head was about 10 ft above me. It had a firm grip on the bird's throat and breast. Every minute or so the bird would beat its wings wildly and scream in a distressed manner for several seconds at a time. At first this attracted many small birds to the scene. These included more Swainson's Thrushes, several Rufous-capped Warblers and two Rufous-and-White Wrens. Only the wrens kicked up a fuss; with the other birds it seemed to be a case of morbid curiosity - they had a good look and moved away.

After 15 minutes, the victim gave up its struggles, and the bird started to disappear into the snake's mouth. 35 minutes after the initial strike, the tail-end of the bird went down its gullet, the snake throughout this period remaining in exactly the same position, with its head hanging 18" below the branch. Finally, after another 10 minutes, the snake lifted its head and slid away into the canopy, along with the big lump in its belly. (This increased its girth to a good 2").

Some days later I visited the La Salle Natural History Museum in San José, where I was able to identify the snake from specimens on display there as:

Species "*Bothrops lateralis*", Spanish name: "lora" - a venomous snake of the viper family".

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Note John Weinberg, President, writes to welcome any member of RNBWS visiting Costa Rica. Contact as above Tel/Fax (506) 267 - 7197.

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U.S.A.: Dr R.G. Wolk, Ph.D., North Carolina Museum of Natural History, P.O.
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INSTRUCTIONS TO AUTHORS

Interested persons are invited to submit contributions for *Sea Swallow*; authors
do not need to be RNBWS members. Material may take the form of papers, notes,
progress reports, letters or reviews.

The style used in *Sea Swallow* should be followed, with the standard
abbreviations, nomenclature and use of references.

Manuscripts should ideally be typed in double spacing, together with figures
and diagrams. Those with facilities to do so are encouraged to send on
3.5" diskette, (specifying the word processing software used). ASCII back-up text
is also desirable, together with a print-out.

Contributions are welcome at any time, but if for inclusion in the next edition,
must reach the Editor by 31st May.

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Rear cover Kittiwake *Rissa tridactyla* (N. Atlantic)

Photo: (the late) Captain S.D. Mayl MN

